

## Wylie ISD Curriculum

<b>Subject Area</b>	Math	<b>Bundle #:</b>	1
<b>Grade/Level</b>	5 <sup>th</sup> grade	<b>Weeks:</b>	1-3
<b>Overview</b>			
<b>Whole Numbers – Place Value, Rounding/Compatible Numbers, Addition, Subtraction, Perimeter, Temperature</b>			
<b>TEKS - Texas Knowledge &amp; Skills</b>			
<b>Knowledge &amp; Skill Statement</b>	<b>Student Expectation</b>	<b>Student Learning Outcome Clarification</b>	
<p><b>5.1 Number, operation, and quantitative reasoning. The student uses place value to represent whole numbers and decimals.</b></p>	<p><b>The student is expected to:</b>  <b>5.1A - use place value to read, write, compare, and order whole numbers through the 999,999,999,999.</b></p>	<p>5.1A                      Including but not limited to:</p> <ul style="list-style-type: none"> <li>• distinguish the difference between a digit and a number</li> <li>• convert, write or describe standard to written through 999,999,999,999 - digits to words</li> <li>• convert, write or describe written to standard through 999,999,999,999 - words to digits</li> <li>• convert between standard form and expanded notation (ex. 790,410,032,465 = 700,000,000,000 + 90,000,000,000 + 400,000,000 + 30,000 + 2,000 + 400 + 60 + 5)</li> <li>• describe place and value</li> <li>• compare and order numbers using symbols and words for "greater than" (&gt;), "less than" (&lt;) and "equal" (=)</li> <li>• represent place value concepts using whole numbers through 999,999,999 with numerals, words, expanded notation and concrete objects</li> <li>• sequence numbers or words associated with numbers</li> <li>• use large numbers in context</li> <li>• create a number smaller, in-between, or larger than given numbers</li> </ul> <p>Notes</p> <ul style="list-style-type: none"> <li>• 5<sup>th</sup> grade introduces billions</li> <li>• Students should only use the word "and" only to indicate a decimal point</li> </ul> <p><b>Examples:</b>  <b>A. Read and write whole numbers through 999,999,999,999.</b></p>	

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<p><b>5.3 Number, operation, and quantitative reasoning. The student adds, subtracts, multiplies, and divides to solve meaningful problems.</b></p>	<p><b>5.3A - use addition and subtraction to solve problems involving whole numbers and decimals.</b></p>	<p><i>B. Relate patterns in model to place value chart.</i></p> <p><i>C. Moving from word form to standard form.</i></p> <p><i>D. Read aloud a number in standard form.</i></p> <p><i>E. Move from standard form to word form.</i></p> <p><i>F. Use expanded notation to represent numbers and the individual values of the digits within a number.</i></p> <p><i>G. Use an instructional strategy such as a place value chart to write expanded numbers in standard form.</i></p> <p><i>H. Use an instructional strategy such as a place value chart to determine the value of a given digit in a number.</i></p> <p><i>I. Use a place value chart to compare numbers.</i></p> <p><i>J. Use an instructional strategy such as aligning numbers vertically to compare the numbers.</i></p> <p><i>K. Use an instructional strategy such as aligning numbers vertically to compare the digits of numbers and order the numbers.</i></p> <p>5.3A</p> <ul style="list-style-type: none"> <li>• use addition and subtract together involving whole numbers through 999,999,999 and decimals (through thousandths) in problem solving situations including data from charts, tables, and graphs</li> <li>• recognize that addition and subtraction are inverse operations</li> <li>• solve problems using addition and subtraction of whole numbers in flexible ways by composing and decomposing numbers</li> <li>• analyze different problem situation to determine the</li> </ul>
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<p><b>5.14A 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.</b></p>	<p><b>The student is expected to:</b></p> <p><b>5.14A - identify the mathematics in everyday situations.</b></p> <p><b>5.14B - solve problems that incorporates understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness.</b></p> <p><b>5.14C - 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.</b></p>	<p><b>Including but not limited to:</b></p> <p>5.14A</p> <ul style="list-style-type: none"> <li>• incorporate real life experiences within all TAKS Objectives 1-5</li> <li>• create problems or graphs when given mathematical information or expressions</li> </ul> <p>5.14B</p> <ul style="list-style-type: none"> <li>• incorporate problem solving within all TAKS Objectives 1-5</li> <li>• read, interpret, and assess the problem for the known and unknown information</li> <li>• assess the problem for missing information</li> <li>• assess the problem for unnecessary information</li> <li>• understand the questions being asked</li> <li>• explore solving the problem using manipulatives or pictures</li> <li>• communicate problem solving strategy orally and in journals</li> <li>• estimate a reasonable solution</li> <li>• record and communicate with pictures, numbers and symbols</li> <li>• evaluate solution and creates questions regarding process</li> <li>• justify answers</li> </ul> <p>5.14C</p> <ul style="list-style-type: none"> <li>• integrate a problem solving strategy within all TAKS Objectives 1-5</li> <li>• read, interpret, and assess the problem for the known, extraneous and unknown information</li> <li>• understand the questions being asked</li> <li>• explore solving the problem using different strategies</li> <li>• communicate problem solving strategy orally and in journals</li> <li>• estimate a reasonable solution</li> <li>• record and communicate with pictures, numbers and symbols</li> </ul>
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	<b>solution process.</b>	solution process within all TAKS objectives 1-5 <ul style="list-style-type: none"> <li>• justify and prove their solutions orally with peers and classroom discussions</li> <li>• justify and prove solutions with pictures, concrete objects, and/or numbers</li> </ul>
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<b>Subject Area</b>	Math	<b>Bundle #:</b>	2
<b>Grade/Level</b>	5 <sup>th</sup> grade	<b>Weeks:</b>	4-6
<b>Overview</b>			
<b>Whole Number Estimation, Multiplication and Division, Area and Volume</b>			
<b>TEKS - Texas Knowledge &amp; Skills</b>			
<b>Knowledge &amp; Skill Statement</b>	<b>Student Expectation</b>	<b>Student Learning Outcome Clarification</b>	
<b>5.3 Number, operation, and quantitative reasoning. The student adds, subtracts, multiplies, and divides to solve meaningful problems.</b>	<b>5.3B Use multiplication to solve problems involving whole numbers (no more than three digits times two digits without technology).</b>	5.3B Including but not limited to: <ul style="list-style-type: none"> <li>▪ apply multiplication (up to 3 digits by 2 digits) to problem situations including data from charts, tables, and graphs</li> <li>▪ extract necessary information needed to solve multi-step problems (ignoring extraneous information) and recognizes the operation(s) needed to solve and checks for reasonableness</li> <li>▪ demonstrate various strategies for solving multiplication problem including partial products (stretch) and area model (box) and standard algorithm</li> <li>▪ apply understanding of concepts including dozen (12), one week (7 days) half-dozen (6)</li> </ul> <i>Examples:</i> <p><b>A. Use concrete models of multiplication to solve problems involving whole numbers.</b></p> <p><b>B. Use partial products to solve multiplication problems involving whole numbers.</b></p>	

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	<p>5.3C Use division to solve problems involving whole numbers (no more than two-digit divisors and three-digit dividends without technology) including interpreting the remainder within a given context.</p>	<p><b>C. Use equations to solve multiplication problems involving whole numbers.</b></p> <p><b>D. Use multiplication to solve problems involving whole numbers.</b></p> <p>5.3C Including but not limited to:</p> <ul style="list-style-type: none"> <li>• understand that division represents sharing equally or forming equal groups</li> <li>• extract necessary information needed to solve the problem (ignoring extraneous information) and recognize the operation(s) needed to solve and checks for reasonableness</li> <li>• use various strategies to solve problems involving division:(two-digit divisor and three digit dividends)</li> <li>• interpret the remainder dependent upon the contextual situation: <ul style="list-style-type: none"> <li>-remainder is written as a fraction or decimal</li> <li>-quotient is always rounded up regardless size of remainder</li> <li>-remainder dropped and the quotient remains the same</li> </ul> </li> </ul> <p>NOTE: 5.3 (C) is the first time mentioned in TEKS for interpretation of remainders.</p> <p><b>Examples:</b></p> <p><b>A. Use pictorial models to solve traditional algorithm division problems involving whole numbers.</b></p> <p><b>B. Use traditional algorithms to solve division problems involving whole numbers.</b></p> <p><b>C. Use equations to solve division problems</b></p>
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<p><b>5.10 Measurement. The student applies measurement concepts involving length, (including perimeter), area, capacity/volume, and weight/mass to solve problems.</b></p>	<p><b>5.10B - connect models for area, and volume with their respective formulas.</b></p>	<p>the problem using reasonableness</p> <ul style="list-style-type: none"> <li>• connect diagrams, equations, and descriptions of meaningful problem situation</li> <li>• justify equation or selection of equation</li> <li>• represent concretely, pictorially and abstractly</li> </ul> <p>NOTE:</p> <ul style="list-style-type: none"> <li>○ 5th grade first time concept requires use of letter or variable for unknown. It is best to introduce this concept using a letter that matches the contextual meaning. ex: " a" for apples, " h" for height, "n" for number.</li> </ul> <p>5.10B</p> <ul style="list-style-type: none"> <li>• explore measuring with different tools and real life objects to develop or reinforce definitions of area and volume</li> <li>• differentiate between concepts in real world problems including:             <ul style="list-style-type: none"> <li>-the amount of glass in the window (area)</li> <li>-the amount of water to fill the pool (volume)</li> </ul> </li> <li>• differentiate labeling of concepts:             <ul style="list-style-type: none"> <li>-linear measure in units</li> <li>-area: square units</li> <li>-volume: cubic units</li> </ul> </li> <li>• explain connection of measurements to formulas (concepts must be developed prior to using formulas)</li> <li>• compare and contrast formulas for area, and volume noting the dimension variables (<i>s</i> - side, <i>l</i> -length, <i>w</i> width, <i>h</i>- height, <i>b</i> - base of triangle)</li> </ul> <p>NOTE:</p> <ul style="list-style-type: none"> <li>• Connecting volume to formula is a new concept for 5th grade</li> </ul> <p><b>A. Measure to solve problems involving area of a rectangle.</b></p>
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	<p><b>5.10C - select and use appropriate units and formulas to measure length, perimeter, area, and volume.</b></p>	<p><b>B. Measure to solve problems involving area of a triangle.</b></p> <p><b>C. Measure to solve problems involving volume of a rectangular prism.</b></p> <p><b>D. Use appropriate units and formulas to measure volume.</b></p> <p>5.10C</p> <ul style="list-style-type: none"><li>• apply knowledge of formulas to solve real world problems including with composite figures and triangles including:<ul style="list-style-type: none"><li>○ the amount of glass in the window (area)</li><li>○ the amount of water to fill the pool (volume)</li></ul></li><li>• differentiate labeling of concepts and recognize abbreviations for measurements including:<ul style="list-style-type: none"><li>○ area: square units (<i>example: square inches, in<sup>2</sup></i>)</li><li>○ volume: cubic units (<i>example cubic meters, m<sup>3</sup></i>)</li></ul></li><li>• explain connection of measurements to formulas (concepts must be developed prior to using formulas)</li><li>• select appropriate formula to solve a real world problem and composite figures</li><li>• recognize abbreviations for measurements</li><li>• compare and contrast formulas describing how they are the same but yet different and note the dimension variables (<i>s</i> - side, <i>l</i> - length, <i>w</i> width, <i>h</i> - height, <i>b</i> - base of triangle)</li></ul> <p>NOTE:</p> <ul style="list-style-type: none"><li>• Volume is a new concept for 5th grade</li><li>• The use of substitution in a formula is introduced in the 5<sup>th</sup> grade.</li><li>• Practice use of the Mathematics TAKS Chart for conversions, formulas and ruler.</li></ul>
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<p><b>5.14A 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.</b></p>	<p><b>The student is expected to:</b>  <b>5.14A - identify the mathematics in everyday situations.</b></p> <p><b>5.14B - solve problems that incorporates understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness.</b></p> <p><b>5.14C - 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.</b></p>	<p>5.14A Including but not limited to:</p> <ul style="list-style-type: none"> <li>• incorporate real life experiences within all TAKS Objectives 1-5</li> <li>• create problems or graphs when given mathematical information or expressions</li> </ul> <p>5.14B</p> <ul style="list-style-type: none"> <li>• incorporate problem solving within all TAKS Objectives 1-5</li> <li>• read, interpret, and assess the problem for the known and unknown information</li> <li>• assess the problem for missing information</li> <li>• assess the problem for unnecessary information</li> <li>• understand the questions being asked</li> <li>• explore solving the problem using manipulatives or pictures</li> <li>• communicate problem solving strategy orally and in journals</li> <li>• estimate a reasonable solution</li> <li>• record and communicate with pictures, numbers and symbols</li> <li>• evaluate solution and creates questions regarding process</li> <li>• justify answers</li> </ul> <p>5.14C</p> <ul style="list-style-type: none"> <li>• integrate a problem solving strategy within all TAKS Objectives 1-5</li> <li>• read, interpret, and assess the problem for the known, extraneous and unknown information</li> <li>• understand the questions being asked</li> <li>• explore solving the problem using different strategies</li> <li>• communicate problem solving strategy orally and in journals</li> <li>• estimate a reasonable solution</li> <li>• record and communicate with pictures, numbers and symbols</li> </ul>
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<p><b>5.15 Underlying processes and mathematical tools. The student communicates about Grade 5 mathematics using informal language. The student is expected to:</b></p>	<p><b>5.14D - use tools including real objects, manipulatives, and technology to solve problems.</b></p> <p><b>5.15A - explain and record observations using objects, words, pictures, numbers, and technology.</b></p> <p><b>5.15B - relate informal language to mathematical language and symbols.</b></p>	<ul style="list-style-type: none"> <li>• evaluate solution and create questions regarding process</li> <li>• justify answers</li> </ul> <p>5.14D</p> <ul style="list-style-type: none"> <li>• use tools including real objects, manipulatives, and technology within all TAKS objectives 1-5</li> <li>• represent from concrete to written computation</li> <li>• explore with manipulatives or pictures</li> <li>• represent equations symbolically or numerically</li> <li>• use tools to justify answer</li> </ul> <p>5.15A</p> <ul style="list-style-type: none"> <li>• integrate, explain, and record observations within all TAKS objectives 1-5</li> <li>• describe the process orally and in words using journal writing/drawing</li> <li>• compare explanations describing what is the same and what is different</li> </ul> <p>5.15B</p> <ul style="list-style-type: none"> <li>• explain and record observations in all objectives 1-5</li> <li>• describe the process orally and in words (informally)</li> <li>• relate informal language to mathematical language</li> <li>• relate informal language to mathematical symbols</li> </ul>
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<b>Subject Area</b>	Math	<b>Bundle #:</b>	3
<b>Grade/Level</b>	5 <sup>th</sup> grade	<b>Weeks:</b>	7-9
<b>Overview</b>			
Outcomes; Possible outcomes; Basic facts			
<b>TEKS - Texas Knowledge &amp; Skills</b>			
<b>Knowledge &amp; Skill Statement</b>	<b>Student Expectation</b>	<b>Student Learning Outcome Clarification</b>	
<p><b>5.6 Patterns, relationships, and algebraic thinking. The student describes relationships mathematically. The student is expected to:</b></p>	<p><b>5.6A select from and use diagrams and equations including <math>y = 5 + 3</math> to represent meaningful problem situations.</b></p>	<p>5.6A Including but not limited to:</p> <ul style="list-style-type: none"> <li>• extract necessary information needed to solve the problem (ignoring extraneous information) and recognizes the operation(s) needed to solve (relationships may be written in words)</li> <li>• select and use diagrams to represent meaningful problem situations</li> <li>• select from and use equations to represent meaningful problem situations</li> <li>• understand equations may include numerical representation only or variable representation (letter for unknown value)</li> <li>• use labels of the problem situation when reading the equation to see if it make sense and matches the problem using reasonableness</li> <li>• connect diagrams, equations, and descriptions of meaningful problem situation</li> <li>• justify equation or selection of equation</li> <li>• represent concretely, pictorially and abstractly</li> </ul> <p>NOTE: 5th grade first time concept requires use of letter or variable for unknown. It is best to introduce this concept using a letter that matches the contextual meaning. ex: "a" for apples, "h" for height, "n" for number</p>	
<p><b>5.12 Probability and statistics. The student describes and predicts the results of a probability experiment. The student is expected to:</b></p>	<p><b>5.12A use fractions to describe the results of an experiment</b></p>	<p>5.12A Including but not limited to:</p> <ul style="list-style-type: none"> <li>• conduct experiments or evaluate a table of results to determine the probability of an event occurring</li> </ul>	

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	<p><b>5.12B use experimental results to make predictions.</b></p> <p><b>5.12C list all possible outcomes of a probability experiment including tossing a coin</b></p>	<ul style="list-style-type: none"> <li>• describe the result (outcomes)of an experiment</li> <li>• use a fraction to represent the probability of an event including equivalent fractions</li> </ul> <p>5.12B Including but not limited to:</p> <ul style="list-style-type: none"> <li>• describe the result (outcomes) using event, fractions (including equivalent) or decimal</li> <li>• evaluate results to predict the probability of a future event occurring</li> <li>• use results to predict which event is more likely, less likely, not possible or certain to occur</li> </ul> <p>5.12C Including but not limited to:</p> <ul style="list-style-type: none"> <li>• use hands-on experiences to develop strategies to find all possible outcomes in a problem situation</li> <li>• demonstrate various methods of organizing all possible outcomes</li> </ul>
<p><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.</b></p>	<p><b>5.14A identify the mathematics in everyday situations.</b></p> <p><b>5.14B solve problems that incorporates understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness.</b></p>	<p>5.14A Including but not limited to:</p> <ul style="list-style-type: none"> <li>• incorporate real life experiences within all TAKS Objectives 1-5</li> <li>• create problems or graphs when given mathematical information or expressions</li> <li>• solve problems that incorporates understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness.</li> </ul> <p>5.14B Including but not limited to:</p> <ul style="list-style-type: none"> <li>• incorporate problem solving within all TAKS Objectives 1-5</li> <li>• read, interpret, and assess the problem for the known and unknown information</li> <li>• assess the problem for missing information</li> <li>• assess the problem for unnecessary information</li> <li>• understand the questions being asked</li> </ul>







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	<p><b>5.2C - compare two fractional quantities in problem-solving situations using a variety of methods, including common denominators.</b></p>	<ul style="list-style-type: none"><li>• generate an improper fraction equivalent to a given mixed number</li><li>• use "out of" when distinguishing part vs whole</li><li>• describe fractional parts using name and symbols in multiple ways of both mixed numbers and improper fractions (with emphasis that 4 out of 4 is one whole) Ex: <math>\frac{7}{4}</math> (improper) is equivalent to <math>1\frac{3}{4}</math> (mixed number), 7 out of 4 equal parts.</li><li>• demonstrate using concrete and pictorial objects that the same improper fraction and mixed number are equivalent</li><li>• describe the difference between proper and improper fractions</li><li>• Use data from charts, tables and graphs to read, write, compare and order to find equivalent forms of mixed numbers and improper fractions</li></ul> <p>NOTE: 5th Grade introduces mixed numbers</p> <p>Use pictorial models to change improper fractions to mixed numbers and mixed numbers to improper fractions.</p> <p>5.2C Including but not limited to:</p> <ul style="list-style-type: none"><li>• analyze fractional quantities using a variety of methods (concrete, pictorial, verbal or abstract)</li><li>• compare two fractional quantities in a problem situation (less than one whole, equal to one whole, or greater than one whole) using comparison terminology</li><li>• order fractional quantities in problem-solving situations using a variety of methods including data from charts, tables, and graphs</li></ul>
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		classroom discussions <ul style="list-style-type: none"> <li>justify and prove solutions with pictures, concrete objects, and/or numbers</li> </ul>
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<b>Subject Area</b>	Math	<b>Bundle #:</b>	5
<b>Grade/Level</b>	5 <sup>th</sup> grade	<b>Weeks:</b>	13-15
<b>Overview</b>			

### Decimals

TEKS - Texas Knowledge & Skills		
Knowledge & Skill Statement	Student Expectation	Student Learning Outcome Clarification
<b>5.1 Number, operation, and quantitative reasoning. The student uses place value to represent whole numbers and decimals. The student is expected to:</b>	<b>5.1B use place value to read, write, compare, and order decimals through the thousandths place.</b>	5.1B Including but not limited to: <ul style="list-style-type: none"> <li>use place value to read, write, compare, and order decimals involving thousandths, including money, using concrete objects</li> <li>use place value to read, write, compare, and order decimals involving thousandths, including money, using pictorial models</li> <li>distinguish between place and value including 2.745, 5 is in the thousandths place and the value is .005 or 5 thousandths</li> <li>compare and order decimal numbers using symbols and words</li> <li>appropriately uses the word "and" to represent the decimal</li> <li>use benchmark numbers including 0.0, 0.5 and 1.0 to compare quantities.</li> <li>change decimal numeral form into word form and word form to numeral representation</li> <li>create a number smaller, in-between, or larger than given numbers</li> <li>use data from charts, tables and graphs to read, write, compare and order decimals through thousandths</li> </ul> NOTE: 5 <sup>th</sup> grade decimals (through thousandths)

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<p><b>5.2 Number, operation, and quantitative reasoning. The student uses fractions in problem-solving situations. The student is expected to:</b></p>	<p><b>5.2D use models to relate decimals to fractions that name tenths, hundredths, and thousandths.</b></p>	<p><i>Examples:</i></p> <ul style="list-style-type: none"> <li><b>A. Use an instructional strategy such as a place value chart to read decimal numbers.</b></li> <li><b>B. Use an instructional strategy such as a place value chart to write decimal numbers in words.</b></li> <li><b>C. Use an instructional strategy such as a place value chart to write decimal numbers in expanded form.</b></li> <li><b>D. Use an instructional strategy such as a place value chart to write an expanded decimal number in standard form.</b></li> <li><b>E. Use an instructional strategy such as a place value chart to describe the value of individual digits in a decimal number.</b></li> <li><b>F. Use an instructional strategy such as a place value chart to compare decimal numbers.</b></li> <li><b>G. Use an instructional strategy such as comparing the value of digits in decimal numbers in order to compare and order the decimal numbers.</b></li> </ul> <p>5.2D Including but not limited to:</p> <ul style="list-style-type: none"> <li>• relate decimals to fractions using concrete objects and pictorial models not limited to 10 X 10 grids</li> <li>• relate fractions to decimals using concrete objects and pictorial models not limited to 10 X 10 grids</li> <li>• generalize equivalence relationship using models Ex: <math>\frac{3}{4}</math> to 0.75    Ex: 0.075 to <math>\frac{75}{1000}</math> or <math>\frac{6}{4}</math> to 1.5 Ex: <math>\frac{30}{100}</math> to <math>\frac{3}{10}</math> to .3</li> <li>• Identify the decimal represented by fraction models of tenths, hundredths, and thousandths.</li> </ul> <p>NOTE: Thousandths is a new concept for 5<sup>th</sup> grade</p>
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<p><b>5.6 Patterns, relationships, and algebraic thinking. The student describes relationships mathematically. The student is expected to:</b></p>	<p><b>5.6A select from and use diagrams and equations including <math>y = 5 + 3</math> to represent meaningful problem situations.</b></p>	<ul style="list-style-type: none"> <li>number used in computation</li> <li>• Ex: <math>376 + 68 = 380 + 70</math></li> <li>• Ex: <math>376 - 98 = 380 - 100</math></li> <li>• use the strategy of compatible numbers in addition and subtraction</li> <li>• numbers that are easy to compute mentally (do not always end in 0)</li> <li>• Ex: <math>25 + 46 + 75</math> could be <math>(25 + 75) + 46 = 146</math></li> <li>• Ex: <math>78 + 96</math> could be <math>78 + 100</math> or <math>75 + 100</math></li> <li>• relate answers to a range of numbers or a number less than or greater than a given value</li> </ul> <p><b>A. <i>Solve problems using rounding and compatible numbers to approximate reasonable results for decimals.</i></b></p> <p>5.6A Including but not limited to:</p> <ul style="list-style-type: none"> <li>• extract necessary information needed to solve the problem (ignoring extraneous information) and recognizes the operation(s) needed to solve (relationships may be written in words)</li> <li>• select and use diagrams to represent meaningful problem situations</li> <li>• select from and use equations to represent meaningful problem situations</li> <li>• understand equations may include numerical representation only or variable representation (letter for unknown value)</li> <li>• use labels of the problem situation when reading the equation to see if it make sense and matches the problem using reasonableness</li> <li>• connect diagrams, equations, and descriptions of meaningful problem situation</li> <li>• justify equation or selection of equation</li> <li>• represent concretely, pictorially and abstractly</li> </ul>
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<p><b>5.14A 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.</b></p>	<p><b>The student is expected to:</b></p> <p><b>5.14A - identify the mathematics in everyday situations.</b></p> <p><b>5.14B - solve problems that incorporates understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness.</b></p> <p><b>5.14C - 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.</b></p>	<p>5.14A Including but not limited to:</p> <ul style="list-style-type: none"> <li>• incorporate real life experiences within all TAKS Objectives 1-5</li> <li>• create problems or graphs when given mathematical information or expressions</li> </ul> <p>5.14B</p> <ul style="list-style-type: none"> <li>• incorporate problem solving within all TAKS Objectives 1-5</li> <li>• read, interpret, and assess the problem for the known and unknown information</li> <li>• assess the problem for missing information</li> <li>• assess the problem for unnecessary information</li> <li>• understand the questions being asked</li> <li>• explore solving the problem using manipulatives or pictures</li> <li>• communicate problem solving strategy orally and in journals</li> <li>• estimate a reasonable solution</li> <li>• record and communicate with pictures, numbers and symbols</li> <li>• evaluate solution and creates questions regarding process</li> <li>• justify answers</li> </ul> <p>5.14C</p> <ul style="list-style-type: none"> <li>• integrate a problem solving strategy within all TAKS Objectives 1-5</li> <li>• read, interpret, and assess the problem for the known, extraneous and unknown information</li> <li>• understand the questions being asked</li> <li>• explore solving the problem using different strategies</li> <li>• communicate problem solving strategy orally and in journals</li> <li>• estimate a reasonable solution</li> <li>• record and communicate with pictures, numbers and symbols</li> <li>• evaluate solution and create questions regarding</li> </ul>
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		classroom discussions <ul style="list-style-type: none"> <li>justify and prove solutions with pictures, concrete objects, and/or numbers</li> </ul>
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<b>Subject Area</b>	Math	<b>Bundle #:</b>	6
<b>Grade/Level</b>	5 <sup>th</sup> grade	<b>Weeks:</b>	16-18

### Overview

Tables, Charts, and Graphs		
TEKS - Texas Knowledge & Skills		
Knowledge & Skill Statement	Student Expectation	Student Learning Outcome Clarification
<p><b>5.5 Patterns, relationships, and algebraic thinking. The student makes generalizations based on observed patterns and relationships.</b></p>	<p><b>5.5A describe the relationship between sets of data in graphic organizers including lists, tables, charts, and diagrams</b></p>	<p>5.5A Including but not limited to:</p> <ul style="list-style-type: none"> <li>evaluate numerous data representations (lists, tables, charts, graphic organizers including Venn diagrams and other diagrams)</li> <li>describe and evaluate relationships between sets of data</li> <li>generalize patterns including nth term and/or describe patterns using words or numerical representations in a real-life situation</li> <li>extend the set of data</li> <li>use reasonableness to verify solution</li> </ul> <p>NOTE:</p> <ul style="list-style-type: none"> <li>5th grade evaluates numerous data sets at one time in various representations</li> <li>See 3.7B and 4.7A for related data sets in tables</li> </ul>
<p><b>5.6 Patterns, relationships, and algebraic thinking. The student describes relationships mathematically. The student is expected to:</b></p>	<p><b>5.6A select from and use diagrams and equations including <math>y = 5 + 3</math> to represent meaningful problem situations.</b></p>	<p>5.6A Including but not limited to:</p> <ul style="list-style-type: none"> <li>extract necessary information needed to solve the problem (ignoring extraneous information) and recognizes the operation(s) needed to solve (relationships may be written in words)</li> <li>select and use diagrams to represent meaningful problem situations</li> <li>select from and use equations to represent</li> </ul>

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<p><b>5.9 Geometry and spatial reasoning. The student recognizes the connection between ordered pairs of numbers and locations of points on a plane.</b></p>	<p><b>5.9 locate and name points on a coordinate grid using ordered pairs of whole numbers.</b></p>	<ul style="list-style-type: none"> <li>• meaningful problem situations</li> <li>• understand equations may include numerical representation only or variable representation (letter for unknown value)</li> <li>• use labels of the problem situation when reading the equation to see if it make sense and matches the problem using reasonableness</li> <li>• connect diagrams, equations, and descriptions of meaningful problem situation</li> <li>• justify equation or selection of equation</li> <li>• represent concretely, pictorially and abstractly</li> </ul> <p>NOTE: 5th grade first time concept requires use of letter or variable for unknown. It is best to introduce this concept using a letter that matches the contextual meaning. ex: "a" for apples, "h" for height, "n" for number</p> <p>5.9 Including but not limited to:</p> <ul style="list-style-type: none"> <li>• demonstrate an understanding of Quadrant I coordinate grid             <ul style="list-style-type: none"> <li>○ origin (0,0)</li> <li>○ location of x axis</li> <li>○ location of y axis</li> <li>○ determines increments of grid (scale)</li> <li>○ ordered pairs (x,y)</li> </ul> </li> <li>• describe location of points (ordered pairs) from origin (Ex: 3 units to the right on the x axis and 4 units up on the y axis, 3 units to the east, etc.)</li> <li>• specify locations on the coordinate grid using ordered pairs</li> <li>• determine an ordered pair that represents a point on the grid that is labeled with words</li> <li>• determine a point on a grid that meets specification (Ex: <math>x &gt; 3</math>, <math>y &lt; 2</math>)</li> <li>• plot points from ordered pairs, tables, etc</li> <li>• relate that all points with the same x-coordinate lie in a vertical line and all points with the same</li> </ul>
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	<p><b>5.13B describe characteristics of data presented in tables and graphs including median, mode, and range</b></p>	<p>NOTE: 5th grade Line graphs are a new concept.</p> <p>5.13B Including but not limited to:</p> <ul style="list-style-type: none"> <li>▪ estimate solutions and check for reasonableness</li> <li>• interpret data and tables to describe median, mode, range</li> <li>• describe the process of how to find median (given an even number and an odd number of data), mode (can be none or more than one mode) and the range of a given data set (spread)</li> <li>• interpret how changing the data will alter the median, mode, and range in a set of data</li> </ul>
<p><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.</b></p>	<p><b>5.14A identify the mathematics in everyday situations.</b></p> <p><b>5.14B solve problems that incorporates understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness.</b></p>	<p>5.14A Including but not limited to:</p> <ul style="list-style-type: none"> <li>• incorporate real life experiences within all TAKS Objectives 1-5</li> <li>• create problems or graphs when given mathematical information or expressions</li> </ul> <p>5.14B Including but not limited to:</p> <ul style="list-style-type: none"> <li>• incorporate problem solving within all TAKS Objectives 1-5</li> <li>• read, interpret, and assess the problem for the known and unknown information</li> <li>• assess the problem for missing information</li> <li>• assess the problem for unnecessary information</li> <li>• understand the questions being asked</li> <li>• explore solving the problem using manipulatives or pictures</li> <li>• communicate problem solving strategy orally and in journals</li> <li>• estimate a reasonable solution</li> <li>• record and communicate with pictures, numbers and symbols</li> <li>• evaluate solution and creates questions regarding process</li> <li>• justify answers</li> </ul>



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<p><b>student is expected to:</b></p>	<p><b>5.16B justify why an answer is reasonable and explain the solution process.</b></p>	<ul style="list-style-type: none"> <li>• identify attributes of examples</li> <li>• identify examples false to given statement</li> <li>• analyze the pattern, examples, or non-examples to make a prediction or an assumption</li> <li>• analyze situations that include nonsense words</li> </ul> <p>5.16B Including but not limited to:</p> <ul style="list-style-type: none"> <li>• justify why an answer is reasonable and explain the solution process within all TAKS objectives 1-5</li> <li>• justify and prove their solutions orally with peers and classroom discussions</li> <li>• justify and prove solutions with pictures, concrete objects, and/or numbers</li> </ul>
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<b>Subject Area</b>	Math	<b>Bundle #:</b>	7
<b>Grade/Level</b>	5 <sup>th</sup> grade	<b>Weeks:</b>	19-21
<b>Overview</b>			
<b>Geometry</b>			
<b>TEKS - Texas Knowledge &amp; Skills</b>			
<b>Knowledge &amp; Skill Statement</b>	<b>Student Expectation</b>	<b>Student Learning Outcome Clarification</b>	
<p><b>5.6 Patterns, relationships, and algebraic thinking. The student describes relationships mathematically. The student is expected to:</b></p>	<p><b>5.6A select from and use diagrams and equations including <math>y = 5 + 3</math> to represent meaningful problem situations</b></p>	<p>5.6A Including but not limited to:</p> <ul style="list-style-type: none"> <li>• extract necessary information needed to solve the problem (ignoring extraneous information) and recognizes the operation(s) needed to solve (relationships may be written in words)</li> <li>• select and use diagrams to represent meaningful problem situations</li> <li>• select from and use equations to represent meaningful problem situations</li> <li>• understand equations may include numerical representation only or variable representation (letter for unknown value)</li> <li>• use labels of the problem situation when reading</li> </ul>	

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<p><b>5.7 Geometry and spatial reasoning. The student generates geometric definitions using critical attributes. The student is expected to:</b></p>	<p><b>5.7 identify essential attributes including parallel, perpendicular, and congruent parts of two- and three-dimensional geometric figures</b></p>	<p>the equation to see if it make sense and matches the problem using reasonableness</p> <ul style="list-style-type: none"> <li>• connect diagrams, equations, and descriptions of meaningful problem situation</li> <li>• justify equation or selection of equation</li> <li>• represent concretely, pictorially and abstractly</li> </ul> <p>5.7 Including but not limited to:</p> <ul style="list-style-type: none"> <li>• define two- and three-dimensional geometric figures using essential attributes</li> <li>• identify, classify, and describe attributes of two- and three-dimensional figures when given a variety of models, everyday objects and nets</li> <li>• compare and contrast both two- and three-dimensional figures according to attributes (include nets) describing similarities and differences using formal geometric vocabulary</li> <li>• identify triangles by angles and sides (acute, obtuse and right, equilateral, isosceles, and scalene)</li> <li>• identify attributes according to labels (sides, edges, angles, vertices, faces)</li> <li>• identify line, line segment, vertex, angle, ray</li> </ul>
<p><b>5.8 Geometry and spatial reasoning. The student models transformations. The student is expected to:</b></p>	<p><b>5.8A Sketch the results of translations, rotations, and reflections on a Quadrant I coordinate grid.</b></p>	<p>5.8A Including but not limited to:</p> <ul style="list-style-type: none"> <li>• model, sketch, and identify different types of transformations on a Quadrant I coordinate grid             <ul style="list-style-type: none"> <li>○ translations</li> <li>○ rotations</li> <li>○ reflections</li> </ul> </li> <li>• explain the change caused by transformation of an original figure and use appropriate mathematical language (ex: translate the figure 3 units right and 2 units up or translate the figure using directions north, south, east, west)</li> </ul>



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<p><b>5.16 Underlying processes and mathematical tools. The student uses logical reasoning to make sense of his or her world. The student is expected to:</b></p>	<p><b>5.15B relate informal language to mathematical language and symbols.</b></p> <p><b>5.16A make generalizations from patterns or sets of examples and non-examples.</b></p> <p><b>5.16B justify why an answer is reasonable and explain the solution process.</b></p>	<p>5.15B Including but not limited to:</p> <ul style="list-style-type: none"> <li>• explain and record observations in all objectives 1-5</li> <li>• describe the process orally and in words (informally)</li> <li>• relate informal language to mathematical language</li> <li>• relate informal language to mathematical symbols</li> </ul> <p>5.16A Including but not limited to:</p> <ul style="list-style-type: none"> <li>• make generalizations from patterns or sets of examples in all objectives 1-5</li> <li>• identify attributes of examples</li> <li>• identify examples false to given statement</li> <li>• analyze the pattern, examples, or non-examples to make a prediction or an assumption</li> <li>• analyze situations that include nonsense words</li> </ul> <p>5.16B Including but not limited to:</p> <ul style="list-style-type: none"> <li>• justify why an answer is reasonable and explain the solution process within all TAKS objectives 1-5</li> <li>• justify and prove their solutions orally with peers and classroom discussions</li> <li>• justify and prove solutions with pictures, concrete objects, and/or numbers</li> <li>•</li> </ul>
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<b>Subject Area</b>	Math	<b>Bundle #:</b>	8
<b>Grade/Level</b>	5 <sup>th</sup> grade	<b>Weeks:</b>	22-24
<b>Overview</b>			
Measurement			
<b>TEKS - Texas Knowledge &amp; Skills</b>			
<b>Knowledge &amp; Skill Statement</b>	<b>Student Expectation</b>	<b>Student Learning Outcome Clarification</b>	
<p><b>5.6 Patterns, relationships, and algebraic thinking. The student describes relationships mathematically. The student is expected to:</b></p>	<p><b>5.6A select from and use diagrams and equations including <math>y = 5 + 3</math> to represent meaningful problem situations.</b></p>	<p>5.6A Including but not limited to:</p> <ul style="list-style-type: none"> <li>• extract necessary information needed to solve the problem (ignoring extraneous information) and recognizes the operation(s) needed to solve (relationships may be written in words)</li> <li>• select and use diagrams to represent meaningful problem situations</li> <li>• select from and use equations to represent meaningful problem situations</li> <li>• understand equations may include numerical representation only or variable representation (letter for unknown value)</li> <li>• use labels of the problem situation when reading the equation to see if it make sense and matches the problem using reasonableness</li> <li>• connect diagrams, equations, and descriptions of meaningful problem situation</li> <li>• justify equation or selection of equation</li> <li>• represent concretely, pictorially and abstractly</li> </ul>	
<p><b>5.10 Measurement. The student applies measurement concepts involving length, (including perimeter), area, capacity/volume, and weight/mass to solve problems. The student is expected to</b></p>	<p><b>5.10A perform simple conversions within the same measurement system SI (metric) or customary</b></p>	<p>5.10A Including but not limited to:</p> <ul style="list-style-type: none"> <li>• estimate solution prior to conversions</li> <li>• develop the idea of conversions with hands-on application</li> <li>• understand the difference between capacity (amount object holds) and weight (gravitational pull on an object)</li> <li>• understand relationships of capacity, length, and weight in customary and SI (Standard International metric units)</li> <li>• perform simple conversions and/or describe</li> </ul>	

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<p><b>5.11 Measurement. The student applies measurement concepts. The student measures time and temperature (in degrees Fahrenheit and Celsius). The student is expected to:</b></p>	<p><b>5.11B solve problems involving elapsed time</b></p>	<p>numerical relationships between units of measure within the same measurement system, including</p> <ul style="list-style-type: none"> <li>○ What fractional part of a foot is 6 inches?</li> <li>○ What fractional part of a liter is 250 milliliters?</li> <li>○ Ten tons would be how many pounds?</li> <li>○ How many ounces is a 1/4 pound burger?</li> <li>○ How many meters is half of a one kilometer race?</li> </ul> <ul style="list-style-type: none"> <li>• determine strategy for performing conversions (multiply or divide)</li> <li>• understand how to measure and solve figures to find the perimeter, area, or volume.</li> <li>• Understand how to measure to the nearest <math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, <math>\frac{1}{8}</math>, or whole.</li> </ul> <p>NOTE:</p> <ul style="list-style-type: none"> <li>○ Metric conversions is a new concept introduced at 5th grade.</li> </ul> <p>Use Mathematics TAKS charts for conversions</p> <p>5.11B Including but not limited to:</p> <ul style="list-style-type: none"> <li>• explore elapsed time using clock with gears or stopwatch to reinforce concept of time (hour and minutes)</li> <li>• determines elapsed time after given beginning and ending time</li> <li>• recognize that time is not a base 10 system</li> <li>• determine the start time given the ending time and the activity time</li> <li>• explain the solution process of finding elapsed time using a variety of strategies</li> <li>• move from concrete (clock) to pictorial (drawing of clocks and explain of process) to abstract (calculating of elapsed time)</li> </ul>
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<p><b>5.15 Underlying processes and mathematical tools. The student communicates about Grade 5</b></p>	<p><b>5.14C 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.</b></p>	<p>5.14C Including but not limited to:</p> <ul style="list-style-type: none"> <li>• integrate a problem solving strategy within all TAKS Objectives 1-5</li> <li>• read, interpret, and assess the problem for the known, extraneous and unknown information</li> <li>• understand the questions being asked</li> <li>• explore solving the problem using different strategies</li> <li>• communicate problem solving strategy orally and in journals</li> <li>• estimate a reasonable solution</li> <li>• record and communicate with pictures, numbers and symbols</li> <li>• evaluate solution and create questions regarding process</li> <li>• justify answers</li> <li>• use tools including real objects, manipulatives, and technology to solve problems.</li> </ul>
	<p><b>5.14D use tools including real objects, manipulatives, and technology to solve problems.</b></p>	<p>5.14D Including but not limited to:</p> <ul style="list-style-type: none"> <li>• use tools including real objects, manipulatives, and technology within all TAKS objectives 1-5</li> <li>• represent from concrete to written computation</li> <li>• explore with manipulatives or pictures</li> <li>• represent equations symbolically or numerically</li> <li>• use tools to justify answer</li> </ul>
	<p><b>5.15A explain and record observations using objects, words, pictures, numbers, and technology.</b></p>	<p>5.15A</p> <ul style="list-style-type: none"> <li>• integrate, explain, and record observations within all TAKS objectives 1-5</li> <li>• describe the process orally and in words using journal writing/drawing</li> <li>• compare explanations describing what is the same and what is different</li> </ul>
	<p><b>5.15B relate informal language to mathematical language and symbols.</b></p>	<p>5.15B</p> <ul style="list-style-type: none"> <li>• explain and record observations in all objectives 1-5</li> </ul>



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<b>Subject Area</b>	Math	<b>Bundle #:</b>	9
<b>Grade/Level</b>	5 <sup>th</sup> grade	<b>Weeks:</b>	25-27
<b>Overview</b>			
<b>Probability</b>			
<b>TEKS - Texas Knowledge &amp; Skills</b>			
<b>Knowledge &amp; Skill Statement</b>	<b>Student Expectation</b>	<b>Student Learning Outcome Clarification</b>	
<p><b>5.6 Patterns, relationships, and algebraic thinking. The student describes relationships mathematically. The student is expected to:</b></p>	<p><b>5.6A select from and use diagrams and equations including <math>y = 5 + 3</math> to represent meaningful problem situations.</b></p>	<p>5.6A Including but not limited to:</p> <ul style="list-style-type: none"> <li>extract necessary information needed to solve the problem (ignoring extraneous information) and recognizes the operation(s) needed to solve (relationships may be written in words)</li> <li>select and use diagrams to represent meaningful problem situations</li> <li>select from and use equations to represent meaningful problem situations</li> <li>understand equations may include numerical representation only or variable representation (letter for unknown value)</li> <li>use labels of the problem situation when reading the equation to see if it make sense and matches the problem using reasonableness</li> <li>connect diagrams, equations, and descriptions of meaningful problem situation</li> <li>justify equation or selection of equation</li> <li>represent concretely, pictorially and abstractly</li> </ul> <p>NOTE: 5th grade first time concept requires use of letter or variable for unknown. It is best to introduce this concept using a letter that matches the contextual meaning. ex: "a" for apples, "h" for height, "n" for number</p>	
<p><b>5.12 Probability and statistics. The student describes and predicts the results of a probability experiment. The student is expected to:</b></p>	<p><b>5.12A use fractions to describe the results of an experiment</b></p>	<p>5.12A Including but not limited to:</p> <ul style="list-style-type: none"> <li>conduct experiments or evaluate a table of results to determine the probability of an event occurring</li> <li>describe the result (outcomes)of an experiment</li> </ul>	



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	<p><b>solution for reasonableness.</b></p> <p><b>5.14C 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.</b></p> <p><b>5.14D use tools including real objects, manipulatives, and technology to solve problems.</b></p>	<p>known and unknown information</p> <ul style="list-style-type: none"> <li>• assess the problem for missing information</li> <li>• assess the problem for unnecessary information</li> <li>• understand the questions being asked</li> <li>• explore solving the problem using manipulatives or pictures</li> <li>• communicate problem solving strategy orally and in journals</li> <li>• estimate a reasonable solution</li> <li>• record and communicate with pictures, numbers and symbols</li> <li>• evaluate solution and creates questions regarding process</li> <li>• justify answers</li> </ul> <p>5.14C Including but not limited to:</p> <ul style="list-style-type: none"> <li>• integrate a problem solving strategy within all TAKS Objectives 1-5</li> <li>• read, interpret, and assess the problem for the known, extraneous and unknown information</li> <li>• understand the questions being asked</li> <li>• explore solving the problem using different strategies</li> <li>• communicate problem solving strategy orally and in journals</li> <li>• estimate a reasonable solution</li> <li>• record and communicate with pictures, numbers and symbols</li> <li>• evaluate solution and create questions regarding process</li> <li>• justify answers</li> <li>• use tools including real objects, manipulatives, and technology to solve problems.</li> </ul> <p>5.14D Including but not limited to:</p> <ul style="list-style-type: none"> <li>• use tools including real objects, manipulatives, and technology within all TAKS objectives 1-5</li> <li>• represent from concrete to written computation</li> </ul>
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<p><b>5.3 Number, operation, and quantitative reasoning. The student adds, subtracts, multiplies, and divides to solve meaningful problems.</b></p>	<p><b>5.2C - compare two fractional quantities in problem-solving situations using a variety of methods, including common denominators.</b></p> <p><b>5.3E - model situations using addition and/or subtraction involving fractions with like denominators using concrete objects, pictures, words, and numbers</b></p>	<ul style="list-style-type: none"> <li>• describe fractional parts using name and symbols in multiple ways of both mixed numbers and improper fractions (with emphasis that 4 out of 4 is one whole) Ex: <math>7/4</math> (improper) is equivalent to <math>1\ 3/4</math> (mixed number), 7 out of 4 equal parts.</li> <li>• demonstrate using concrete and pictorial objects that the same improper fraction and mixed number are equivalent</li> <li>• describe the difference between proper and improper fractions</li> <li>• Use data from charts, tables and graphs to read, write, compare and order to find equivalent forms of mixed numbers and improper fractions</li> </ul> <p>NOTE: 5th Grade introduces mixed numbers</p> <p>5.2C Including but not limited to:</p> <ul style="list-style-type: none"> <li>• analyze fractional quantities using a variety of methods (concrete, pictorial, verbal or abstract)</li> <li>• compare two fractional quantities in a problem situation (less than one whole, equal to one whole, or greater than one whole) using comparison terminology</li> <li>• order fractional quantities in problem-solving situations using a variety of methods including data from charts, tables, and graphs</li> <li>• renames fractions using common denominators</li> </ul> <p>5.3E Including but not limited to:</p> <ul style="list-style-type: none"> <li>• extract necessary information needed to solve the problem from word problems, tables, and charts (ignoring extraneous information) and recognize the operation(s) needed to solve</li> <li>• use various strategies to interpret and solve</li> </ul>
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<p><b>5.10 Measurement. The student applies measurement concepts involving length, (including perimeter), area, capacity/volume, and weight/mass to solve problems.</b></p> <p><b>5.6 Patterns, relationships, and algebraic thinking. The student describes relationships mathematically.</b></p>	<p><b>5.10C - select and use appropriate units and formulas to measure length, perimeter, area, and volume.</b></p> <p><b>5.6A - select from and use diagrams and equations such as <math>y=5+3</math> to represent meaningful problem situations.</b></p>	<p>problems involving fractions with like denominators Examples:</p> <ul style="list-style-type: none"> <li>○ Coins: Had nine dimes and then spent six dimes. What fractions of the dimes remain?</li> <li>○ Scales: <math>\frac{3}{8}</math> pound of potatoes and <math>\frac{1}{8}</math> pound of onion, how many more pounds of potatoes were bought than onions?</li> <li>○ Measuring cups: <math>\frac{3}{4}</math> cup of milk + <math>\frac{1}{4}</math> cup of water is how much liquid?</li> <li>○ Ruler: <math>\frac{3}{8}</math> inch + <math>\frac{7}{8}</math> inch is how many inches?</li> <li>○ Circle fractions to represent pizza: John ate <math>1\frac{1}{3}</math> pizzas and Matt ate <math>\frac{2}{3}</math> of the pizza. How much more pizza did John eat than Matt?</li> </ul> <p>5.10C Including but not limited to:</p> <ul style="list-style-type: none"> <li>• appropriately use a ruler to measure length.</li> <li>• Measure to solve problems involving length.</li> </ul> <p>5.6A Including but not limited to:</p> <ul style="list-style-type: none"> <li>• extract necessary information needed to solve the problem (ignoring extraneous information) and recognizes the operation(s) needed to solve (relationships may be written in words)</li> <li>• select and use diagrams to represent meaningful problem situations</li> <li>• select from and use equations to represent meaningful problem situations</li> <li>• understand equations may include numerical representation only or variable representation (letter for unknown value)</li> <li>• use labels of the problem situation when reading the equation to see if it make sense and matches the problem using reasonableness</li> </ul>
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<p><b>5.15 Underlying processes and mathematical tools. The student communicates about Grade 5 mathematics using informal language. The student is expected to:</b></p>	<p><b>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></p> <p><b>5.14D - use tools including real objects, manipulatives, and technology to solve problems.</b></p> <p><b>5.15A - explain and record observations using objects, words, pictures, numbers, and technology.</b></p> <p><b>5.15B - relate informal language to mathematical language and symbols.</b></p>	<ul style="list-style-type: none"> <li>• integrate a problem solving strategy within all TAKS Objectives 1-5</li> <li>• read, interpret, and assess the problem for the known, extraneous and unknown information</li> <li>• understand the questions being asked</li> <li>• explore solving the problem using different strategies</li> <li>• communicate problem solving strategy orally and in journals</li> <li>• estimate a reasonable solution</li> <li>• record and communicate with pictures, numbers and symbols</li> <li>• evaluate solution and create questions regarding process</li> <li>• justify answers</li> <li>• use tools including real objects, manipulatives, and technology to solve problems.</li> </ul> <p>5.14D Including but not limited to:</p> <ul style="list-style-type: none"> <li>• use tools including real objects, manipulatives, and technology within all TAKS objectives 1-5</li> <li>• represent from concrete to written computation</li> <li>• explore with manipulatives or pictures</li> <li>• represent equations symbolically or numerically</li> <li>• use tools to justify answer</li> </ul> <p>5.15A Including but not limited to:</p> <ul style="list-style-type: none"> <li>• integrate, explain, and record observations within all TAKS objectives 1-5</li> <li>• describe the process orally and in words using journal writing/drawing</li> <li>• compare explanations describing what is the same and what is different</li> </ul> <p>5.15B</p> <ul style="list-style-type: none"> <li>• explain and record observations in all objectives 1-5</li> <li>• describe the process orally and in words (informally)</li> <li>• relate informal language to mathematical language</li> <li>• relate informal language to mathematical symbols</li> </ul>
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## Wylie ISD Curriculum

<p><b>adds, subtracts, multiplies, and divides to solve meaningful problems. The student is expected to:</b></p>	<p><b>numbers and decimals.</b></p> <p><b>5.3B Use multiplication to solve problems involving whole numbers (no more than three digits times two digits without technology).</b></p> <p><b>5.3C Use division to solve problems involving whole numbers (no more than two-digit divisors and three-digit dividends without technology) including interpreting the remainder within a given context.</b></p>	<p>numbers through 999,999,999 and decimals (through thousandths) in problem solving situations including data from charts, tables, and graphs</p> <ul style="list-style-type: none"> <li>• recognize that addition and subtraction are inverse operations</li> <li>• solve problems using addition and subtraction of whole numbers in flexible ways by composing and decomposing numbers</li> <li>• analyze different problem situation to determine the operation(s) needed to solve problems</li> <li>• solve multi-step problems that use terminology including less than, more than, greater than, fewer than (Ex: Robb is 2.5 feet less than Juan)</li> </ul> <p>5.3B Including but not limited to:</p> <ul style="list-style-type: none"> <li>▪ apply multiplication (up to 3 digits by 2 digits) to problem situations including data from charts, tables, and graphs</li> <li>▪ extract necessary information needed to solve multi-step problems (ignoring extraneous information) and recognizes the operation(s) needed to solve and checks for reasonableness</li> <li>▪ demonstrate various strategies for solving multiplication problem including partial products (stretch) and area model (box) and standard algorithm</li> <li>▪ apply understanding of concepts including dozen (12), one week (7 days) half-dozen (6)</li> </ul> <p>5.3C Including but not limited to:</p> <ul style="list-style-type: none"> <li>• understand that division represents sharing equally or forming equal groups</li> <li>• extract necessary information needed to solve the problem (ignoring extraneous information) and recognize the operation(s) needed to solve and checks for reasonableness</li> <li>• use various strategies to solve problems involving</li> </ul>
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<p><b>5.4 estimates to determine reasonable results. The student is expected to:</b></p>	<p><b>5.4 use strategies including rounding and compatible numbers to estimate solutions to multiplication, division, addition and subtraction problems</b></p>	<p>division:(two-digit divisor and three digit dividends)</p> <ul style="list-style-type: none"> <li>• interpret the remainder dependent upon the contextual situation             <ul style="list-style-type: none"> <li>▪ remainder is written as a fraction or decimal                 <ul style="list-style-type: none"> <li>• Ex: dividing money among 4 people</li> </ul> </li> <li>▪ quotient is always rounded up regardless size of remainder                 <ul style="list-style-type: none"> <li>• Ex: number of cars needed to transport people</li> </ul> </li> <li>▪ remainder dropped and the quotient remains the same                 <ul style="list-style-type: none"> <li>• Ex: sharing footballs among 6 people</li> </ul> </li> </ul> </li> </ul> <p>5.4 Including but not limited to:</p> <ul style="list-style-type: none"> <li>• use various strategies to estimate solutions to addition and subtraction of problems</li> <li>• estimate <b>before</b> solving problems</li> <li>• use the strategy of rounding in addition and subtraction</li> <li>• round before computation in real life situations</li> <li>• do not round numbers that are single digits</li> <li>• round to the highest place value of the smallest number used in computation             <ul style="list-style-type: none"> <li>• Ex: <math>376 + 68 = 380 + 70</math></li> <li>• Ex: <math>376 - 98 = 380 - 100</math></li> </ul> </li> <li>• use the strategy of compatible numbers in addition and subtraction</li> <li>• numbers that are easy to compute mentally (do not always end in 0)             <ul style="list-style-type: none"> <li>• Ex: <math>25 + 46 + 75</math> could be <math>(25 + 75) + 46 = 146</math></li> <li>• Ex: <math>78 + 96</math> could be <math>78 + 100</math> or <math>75 + 100</math></li> <li>• relate answers to a range of numbers or a number less than or greater than a given value</li> </ul> </li> <li>• use various strategies to estimate solutions to multiplication and division of problems</li> </ul>
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		<ul style="list-style-type: none"> <li>• understand equations may include numerical representation only or variable representation (letter for unknown value)</li> <li>• use labels of the problem situation when reading the equation to see if it make sense and matches the problem using reasonableness</li> <li>• connect diagrams, equations, and descriptions of meaningful problem situation</li> <li>• justify equation or selection of equation</li> <li>• represent concretely, pictorially and abstractly</li> </ul>
<p><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.</b></p>	<p><b>5.14A identify the mathematics in everyday situations.</b></p> <p><b>5.14B solve problems that incorporates understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness.</b></p>	<p>5.14A Including but not limited to:</p> <ul style="list-style-type: none"> <li>• incorporate real life experiences within all TAKS Objectives 1-5</li> <li>• create problems or graphs when given mathematical information or expressions</li> <li>• solve problems that incorporates understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness.</li> </ul> <p>5.14B Including but not limited to:</p> <ul style="list-style-type: none"> <li>• incorporate problem solving within all TAKS Objectives 1-5</li> <li>• read, interpret, and assess the problem for the known and unknown information</li> <li>• assess the problem for missing information</li> <li>• assess the problem for unnecessary information</li> <li>• understand the questions being asked</li> <li>• explore solving the problem using manipulatives or pictures</li> <li>• communicate problem solving strategy orally and in journals</li> <li>• estimate a reasonable solution</li> <li>• record and communicate with pictures, numbers and symbols</li> <li>• evaluate solution and creates questions regarding process</li> <li>• justify answers</li> </ul>

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<p><b>5.15 Underlying processes and mathematical tools. The student communicates about Grade 5 mathematics using informal language. The student is expected to:</b></p>	<p><b>5.14C 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.</b></p>	<p>5.14C Including but not limited to:</p> <ul style="list-style-type: none"> <li>• integrate a problem solving strategy within all TAKS Objectives 1-5</li> <li>• read, interpret, and assess the problem for the known, extraneous and unknown information</li> <li>• understand the questions being asked</li> <li>• explore solving the problem using different strategies</li> <li>• communicate problem solving strategy orally and in journals</li> <li>• estimate a reasonable solution</li> <li>• record and communicate with pictures, numbers and symbols</li> <li>• evaluate solution and create questions regarding process</li> <li>• justify answers</li> <li>• use tools including real objects, manipulatives, and technology to solve problems.</li> </ul>
	<p><b>5.14D use tools including real objects, manipulatives, and technology to solve problems.</b></p>	<p>5.14D Including but not limited to:</p> <ul style="list-style-type: none"> <li>• use tools including real objects, manipulatives, and technology within all TAKS objectives 1-5</li> <li>• represent from concrete to written computation</li> <li>• explore with manipulatives or pictures</li> <li>• represent equations symbolically or numerically</li> <li>• use tools to justify answer</li> </ul>
	<p><b>5.15A explain and record observations using objects, words, pictures, numbers, and technology.</b></p> <p><b>5.15B relate informal language to mathematical language and symbols.</b></p>	<p>5.15A</p> <ul style="list-style-type: none"> <li>• integrate, explain, and record observations within all TAKS objectives 1-5</li> <li>• describe the process orally and in words using journal writing/drawing</li> <li>• compare explanations describing what is the same and what is different</li> </ul> <p>5.15B</p> <ul style="list-style-type: none"> <li>• explain and record observations in all objectives 1-5</li> </ul>









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	<p><b>solution for reasonableness.</b></p>	<p>known and unknown information</p> <ul style="list-style-type: none"> <li>• assess the problem for missing information</li> <li>• assess the problem for unnecessary information</li> <li>• understand the questions being asked</li> <li>• explore solving the problem using manipulatives or pictures</li> <li>• communicate problem solving strategy orally and in journals</li> <li>• estimate a reasonable solution</li> <li>• record and communicate with pictures, numbers and symbols</li> <li>• evaluate solution and creates questions regarding process</li> <li>• justify answers</li> </ul>
	<p><b>5.14C 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.</b></p>	<p>5.14C Including but not limited to:</p> <ul style="list-style-type: none"> <li>• integrate a problem solving strategy within all TAKS Objectives 1-5</li> <li>• read, interpret, and assess the problem for the known, extraneous and unknown information</li> <li>• understand the questions being asked</li> <li>• explore solving the problem using different strategies</li> <li>• communicate problem solving strategy orally and in journals</li> <li>• estimate a reasonable solution</li> <li>• record and communicate with pictures, numbers and symbols</li> <li>• evaluate solution and create questions regarding process</li> <li>• justify answers</li> <li>• use tools including real objects, manipulatives, and technology to solve problems.</li> </ul>
	<p><b>5.14D use tools including real objects, manipulatives, and technology to solve problems.</b></p>	<p>5.14D Including but not limited to:</p> <ul style="list-style-type: none"> <li>• use tools including real objects, manipulatives, and technology within all TAKS objectives 1-5</li> <li>• represent from concrete to written computation</li> </ul>

