

# Rockwall ISD

## 5th Grade Math Parent Guide

	1 <sup>st</sup> Grading Period	2 <sup>nd</sup> Grading Period	3 <sup>rd</sup> Grading Period	4 <sup>th</sup> Grading Period
<b>Process TEKS</b> <i>(How we do the math)</i>	<p><b>A</b> Apply mathematics to problems arising in everyday life, society, &amp; the workplace</p> <p><b>B</b> Use a problem solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, &amp; evaluating the problem-solving process &amp; the reasonableness of the solution</p> <p><b>C</b> Select tools, including real objects, manipulatives, paper &amp; pencil, &amp; technology as appropriate, &amp; techniques, including mental math, estimation, &amp; number sense as appropriate, to solve problems</p> <p><b>D</b> Communicate mathematical ideas, reasoning, &amp; their implications using multiple representations, including symbols, diagrams, graphs, &amp; language as appropriate</p> <p><b>E</b> Create &amp; use representations to organize, record, &amp; communicate mathematical ideas</p> <p><b>F</b> Analyze mathematical relationships to connect &amp; communicate mathematical ideas</p> <p><b>G</b> Display, explain, &amp; justify mathematical ideas &amp; arguments using precise mathematical language in written or oral communication</p>			
<b>Units</b>	<p><i>Routine (Embedded Throughout Term 1)</i> 5.3AK, 5.4B</p> <p><b>Unit 1: Place Value &amp; Algebraic Relationships</b> 5.2ABC, 5.3BCK, 5.4AEF, 5.9AC, 5.10CDEF</p> <p><b>Unit 2: Multiplication &amp; Division with Decimals</b> 5.3BCDEFG, 5.4BEF, 5.9AC, 5.10AB</p>	<p><i>Routine (Embedded Throughout Terms 2-4)</i> 5.3ABCK, 5.4BF</p> <p><b>Unit 2: Multiplication &amp; Division with Decimals (continued)</b> 5.3BCDEFG, 5.4BEF, 5.9AC, 5.10AB</p> <p><b>Unit 3: Operations with Fractions (comparing, improper, mixed, equivalent, &amp; simplifying fractions)</b> 5.3HIJKL, 5.4AEF, 5.9AC</p>	<p><b>Unit 3: Operations with Fractions (comparing, improper, mixed, equivalent, &amp; simplifying fractions) (continued)</b> 5.3HIJKL, 5.4AEF, 5.9AC</p> <p><b>Unit 4: Patterns on a Coordinate Plane &amp; Algebraic Relationships</b> 5.4BCD, 5.8ABC, 5.9BC</p> <p><b>Unit 5: Geometry &amp; Measurement Applications</b> 5.4BGH, 5.5A, 5.6AB, 5.7A</p>	<p><b>Unit 6: Applications of Operations</b> 5.3EGKL, 5.4BF</p> <p><b>Unit 7: Deepening &amp; Spiraling Readiness Standards</b> 5.2B, 5.3EGKL, 5.4CH, 5.5A, 5.8C, 5.9C</p>
<b>Topic Focus</b>	<p><b>Unit 1:</b> Students will extend their knowledge of place value to the thousandths by representing using expanded notation &amp; numerals, rounding decimals, &amp; comparing/ordering decimals. They will solve problems to include adding &amp; subtracting decimals to the thousandths, multiplying 3-digit by 2-digit whole numbers, &amp; dividing a 4-digit dividend by a 2-digit divisor. They will be introduced to identifying prime &amp; composite numbers &amp; simplifying numerical expressions. Students will solve one- &amp; two-step problems from frequency tables, bar graphs, &amp; dot plots. They will identify advantages &amp; disadvantages of different forms of payment, as well as balance a simple budget.</p> <p><b>Unit 2:</b> Students will be introduced to finding products &amp; quotients of</p>	<p><b>Unit 2: continued</b></p> <p><b>Unit 3:</b> Students will represent &amp; solve addition &amp; subtraction of fractions with unequal denominators using objects, pictorial models, &amp; properties of operations. They will represent &amp; solve multiplication &amp; division of fractions to include dividing a whole number by a unit fraction &amp; a unit fraction by a whole number, as well as multiplying a whole including simplifying expressions. Students will solve 1- &amp; 2-step problems from frequency tables, bar graphs, &amp; dot plots, including fractions.</p>	<p><b>Unit 3: continued</b></p> <p><b>Unit 4:</b> Students will continue to represent &amp; solve multi-step word problems involving the 4 operations with whole numbers using equations with a letter standing for the unknown quantity. They will generate numerical patterns when given a rule in the form of <math>y=ax</math> or <math>y = x + a</math>, graph outcomes in the first quadrant, &amp; recognize the difference between additive &amp; multiplicative numerical patterns given in a table or graph. Students will represent discrete paired data on a scatterplot &amp; solve 1- &amp; 2-step problems using data from a frequency table, dot plot, bar graph, stem-&amp;-leaf plot, or scatterplot.</p> <p><b>Unit 5:</b> Students will transfer their knowledge of 2-dimensional shapes, attributes, &amp; properties from prior</p>	<p><b>Unit 6:</b> Students will deepen their understanding and build upon current level of mastery of 5th grade standards. They will apply knowledge of addition, subtraction, multiplication, &amp; division to numerical expressions &amp; multi-step contextual situations.</p> <p><b>Unit 7:</b> Students will deepen their knowledge of 5th grade standards as they review &amp; apply all TEKS to problem situations.</p>

	<p>decimal numbers to the hundredths using objects, pictorial models- including area models, &amp; the standard algorithm. They will represent &amp; solve multi-step problems with whole numbers &amp; unknowns/variables &amp; simplify numerical expressions. Students will solve one- &amp; two-step problems using data from frequency tables, dot plots, bar graphs, &amp; stem-&amp;-leaf plots, including decimal numbers, &amp; represent categorical data with bar graphs or frequency tables &amp; numerical data with dot or stem-&amp;-leaf plots. Students will also define types of taxes &amp; explain the difference between gross &amp; net income.</p>		<p>grades to be able to classify 2-D shapes into a hierarchy of sets &amp; subsets using graphic organizers. Students will recognize a cube with side length of one unit as a unit cube having one cubic unit of volume &amp; the volume of a 3-dimensional figure as the number of unit cubes (<math>n</math> cubic units) needed to fill the figure. They will determine the volume of a rectangular prism with whole number side lengths in problems related to the number of layers times the number of unit cubes in the area of the base. They will use concrete objects &amp; pictorial models to develop the formulas for the volume of a rectangular prism, including the special formula for a cube. Students will also represent &amp; solve problems related to perimeter, area, &amp; related volume.</p>	
<p><b>Suggestions for Parental Involvement/ Support</b></p>	<p><b>Place Value of Decimals</b> - Have students make decimal cards up to three decimal places (thousandths) &amp; have them compare, order greatest to least or least to greatest, &amp; write in standard form, expanded form, &amp; word form. <a href="#">Decimal Place Value videos</a></p> <p><b>Addition/Subtraction of Whole Numbers &amp; Decimals</b> - Have students use the decimal cards they created for Place Value &amp; find the sum or difference. Include whole numbers up to hundred thousand. Students could then create real world situations (word problem) involving adding &amp; subtracting decimals. When out shopping, apply reasonableness &amp; estimation to calculate totals of items being purchased. <a href="#">Addition/Subtraction videos</a></p> <p><b>Multiplication</b> - Have students practice their multiplication facts up through <math>12 \times 12</math> (flash cards, Math Facts). Please continue to practice these facts throughout the school year. <a href="#">Multiplication/Division videos</a></p> <p><b>Division with Whole Numbers &amp; Decimals</b> - Practice standard</p>	<p><b>Operations with Fractions</b> - Ask your child to identify fractions around the house (<i>ex. What fraction of the shirts in your closet are red? What fraction are blue?</i>) Compare these fractions. Find the sum or difference of these fractions. Find equivalent fractions when cooking/baking. (<i>ex. I need <math>\frac{1}{2}</math> cup of oil, but I don't have a <math>\frac{1}{2}</math> measuring cup. What other size measuring cups could you use to make the <math>\frac{1}{2}</math> cup? Two <math>\frac{1}{4}</math> cups, four <math>\frac{1}{8}</math> cups, etc.)</i> <a href="#">Fraction Operation videos</a></p> <p><a href="#">Order of Operations videos</a> Grade 5 solves problems with up to 2 groupings without exponents.</p>	<p><b>Patterns &amp; Coordinate Grids</b> - Have your child identify, label, &amp; practice plotting points (whole numbers, decimals, &amp; fractions) on a coordinate plane (First quadrant only). Play Battleship. <a href="#">Algebraic Thinking videos</a></p> <p><b>Geometry &amp; Measurement</b> - Have your child identify &amp; solve for perimeter, area, &amp; volume problems. (Use real world items ex. Length, width &amp; height of table top, bathtub, backyard) <a href="#">Coordinate Grid &amp; Geometry videos</a></p> <p>Have your child identify, compare, contrast, &amp; find real world examples of all types of quadrilaterals (parallelogram, rectangle, rhombus, square, trapezoid) <a href="#">Measurement &amp; Data videos</a></p> <p><b>Data Analysis</b> - Have your child create a survey &amp; create tables, charts, or graphs that represent the data they collect. (dot plot, stem &amp; leaf, bar graph, scatterplots)</p>	<p><b>Spiraling Readiness Skills-</b> Have your child practice adding, subtracting, multiplying &amp; dividing whole numbers, decimals &amp; fractions.</p>

algorithm. Remember to include remainders (left overs).

## General Resources

Khan Academy: <https://www.khanacademy.org/math>

Math 4 Texas: <https://www.math4texas.org/>

Imagine Math & Imagine Math Facts: Login through Google Dashboard

Graham Fletcher Progression Videos: <https://gfletchy.com/progression-videos/>

Interactive Math Glossary: <https://www.texasgateway.org/resource/interactive-math-glossary>

Virtual Manipulatives & Strategy Charts: [5 Math Manipulatives Page](#)