

# Rockwall ISD

## Math 6 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 <u>do</u> 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><b>Unit 1:</b> <i>Equivalent Forms of Fractions, Decimals, &amp; Percents</i> 6.2E, 6.4EFG, 6.5BC</p> <p><b>Unit 2:</b> <i>Ordering Fractions, Decimals, &amp; Integers</i> 6.2ABCD, 6.4G</p> <p><b>Unit 3:</b> <i>Operations with Positive Fractions &amp; Decimals</i> 6.2E, 6.3ABE, 6.14GH</p>	<p><b>Unit 3:</b> <i>Operations with Positive Fractions &amp; Decimals (continued)</i> 6.2E, 6.3ABE, 6.14GH</p> <p><b>Unit 4:</b> <i>Operations with Integers</i> 6.2B, 6.3CD, 6.14ABC</p> <p><b>Unit 5:</b> <i>Proportional Reasoning with Ratios &amp; Rates</i> 6.4BCDEGH, 6.5AB, 6.14DEF</p>	<p><b>Unit 6:</b> <i>Equivalent Expressions</i> 6.7ABCD</p> <p><b>Unit 7:</b> <i>One-Variable Equations &amp; Inequalities</i> 6.9ABC, 6.10AB</p> <p><b>Unit 8:</b> <i>Algebraic Representations of Two-Variable Relationships</i> 6.4A, 6.6ABC, 6.11A</p> <p><b>Unit 9:</b> <i>Geometry &amp; Measurement</i> 6.4H, 6.8ABCD</p>	<p><b>Unit 9:</b> <i>Geometry &amp; Measurement (continued)</i> 6.4H, 6.8ABCD</p> <p><b>Unit 10:</b> <i>Data Analysis</i> 6.12ABCD, 6.13AB</p> <p><b>Unit 11:</b> <i>Deepening &amp; Spiraling Readiness Standards</i> 6.2D, 6.4BGH, 6.5B, 6.6C, 6.7AD, 6.8D, 6.10A, 6.11A, 6.12CD, 6.13A</p> <p><b>Unit 12:</b> <i>Rational Number &amp; Integer Operations Project-Based Learning</i> Apply all 6th grade standards to ensure mastery of grade level content</p>
<b>Topic Focus</b>	<p><b>Unit 1:</b> Students will be introduced to the concept of percent. Students will expand their understanding of a fraction as another way to write a division problem, convert between fractions &amp; decimals, &amp; convert between mixed numbers &amp; improper fractions. Also, students will understand the relationship between part, whole &amp; percent.</p> <p><b>Unit 2:</b> Students will continue to generate equivalent forms of fractions, decimals &amp; percent, identify a number, its opposite, and understand absolute value, order &amp; locate rational numbers (includes fractions, decimals, &amp; integers) on a number line, classify numbers, &amp; use inequality symbols to compare</p>	<p><b>Unit 3:</b> (continued)</p> <p><b>Unit 4:</b> Students will identify a number &amp; its opposite, understand absolute value, use concrete &amp; pictorial models for integer operations, perform all operations with integers, distinguish between debit &amp; credit cards, &amp; balance a checkbook.</p> <p><b>Unit 5:</b> Students will understand proportional reasoning by exploring the relationship between proportions, ratios, &amp; rates. Students will continue to deepen their understanding of proportional reasoning by applying the concepts of percent &amp; scale factor while working with tables, graphs &amp; money in real-world scenarios. Students will also learn about credit reports.</p>	<p><b>Unit 6:</b> Students will extend Order of Operations to solve problems with exponents &amp; rational numbers, find prime factorization, &amp; identify properties such as inverse, identity, commutative, associative &amp; distributive.</p> <p><b>Unit 7:</b> Students will define, identify, graph, interpret &amp; solve one-variable, one-step equations &amp; inequalities in multiple ways.</p> <p><b>Unit 8:</b> Students will graph ordered pairs in all four quadrants, recognize multiplicative &amp; additive relationships, &amp; identify independent &amp; dependent relationships &amp; quantities.</p> <p><b>Unit 9:</b> Students will extend knowledge of triangles to include the</p>	<p><b>Unit 9:</b> (continued)</p> <p><b>Unit 10:</b> Students will create, analyze &amp; summarize data in dot plots, stem-&amp;-leaf plots, histograms, box plots &amp; percent bar graphs. Students will describe the graphs' shape, center &amp; the spread of data. Students will use academic vocabulary such as skewed, symmetric, mean, median, mode, range, with variability &amp; without variability, to describe sets of data. In financial literacy, students will revisit credit reports, compare methods of paying for college &amp; compare annual salaries of different occupations using tables &amp; graphs.</p> <p><b>Unit 11:</b> Students will review &amp; deepen their understanding of all 6th grade standards in preparation for the STAAR test.</p>

	<p>rational numbers.</p> <p><b>Unit 3:</b> Students will expand their understanding of decimals as fractional parts of a whole, recognize when a number is multiplied by a fraction less than one the value (answer) will decrease, &amp; the value will increase if the number is multiplied by an improper fraction or mixed number. Students will also learn about paying for college &amp; annual salaries.</p>		<p>Triangle Inequality Theorem, &amp; side length/angle relationship. With quadrilaterals &amp; triangles, students will decompose &amp; rearrange parts to model area formulas, write equations &amp; determine solutions to find the area of quadrilaterals &amp; triangles &amp; find volume of rectangular prisms. Students will also convert within the same measurement system.</p>	<p><b>Unit 12:</b> Students will apply all 6th grade standards to ensure mastery of grade level content.</p>
<p><b>Suggestions for Parental Involvement/Support</b></p>	<p><b>Multiplication Fact Fluency &amp; Long Division</b></p> <p><b>Real world fractions</b> - Cooking together &amp; discussing measurements with increasing &amp; decreasing serving size.</p> <p><b>Percents</b> - Items on sale, discuss discounts &amp; how to mentally calculate 10% of a whole number &amp; use this to find others percents such as 20%, 25%, 50% &amp; 75%. Relate percent to \$1.00, to reinforce percent is out of 100. <math>\frac{1}{4}</math> of a dollar is \$.25, <math>\frac{1}{2}</math> of a dollar is \$.50 and <math>\frac{3}{4}</math> of a dollar is \$.75. Have your child calculate the tip on a meal by rounding the price of the meal to the nearest whole number.</p> <p><a href="https://www.ixl.com/">https://www.ixl.com/</a> 6th Grade - Percents: Lessons S.1 → S.10</p> <p><b>Financial Literacy</b> - Discuss the different ways to pay for college. (Saving Account, Student Loans, Grants, Work Study &amp; Scholarships)</p> <p><b>Budgets</b> - Discuss the components of your family budget &amp; the different bills you pay each month. Discuss bills that are variable or change each month, such as water, electricity, groceries &amp; entertainment. Also, discuss fixed expenses, such as house payment &amp; car payment.</p>	<p><b>Multiplication Fact Fluency &amp; Long Division</b></p> <p><b>Integers</b> - (Real World Positive &amp; Negative Numbers) Adding, Subtracting, Multiplying &amp; Dividing Integers</p> <p>Discuss weather &amp; temperature changes. "It's 25 degrees and drops 28, now it is -3 degrees. Discuss credits &amp; debits, deposits &amp; withdrawals. What does it mean when an account is overdrawn? Discuss above &amp; below sea level</p> <p><b>Proportionality</b> - Practice generating &amp; making equivalent fractions. Also, practice simplifying fractions.</p> <p><b>Unit Rate</b> - Calculate how much items cost per 1 unit. Example: \$3.50 for 7 pounds of grapes. How much do they cost per pound. Ex. Miles per gallon, beats per minute</p> <p>Compare prices to determine the better deal when shopping.</p>	<p><b>Multiplication Fact Fluency &amp; Long Division</b></p> <p><b>Inequalities</b> - Problems with a range of answers. Example- My mom gave me \$20 for my trip to the movies. How much can I spend? \$20 or less. Possible answers: \$19, \$12.50 etc. .</p> <p><b>Coordinates</b> - Play Battleship <a href="https://www.desmos.com/">https://www.desmos.com/</a> <a href="http://www.shodor.org/interactivate/activities/GeneralCoordinates/">http://www.shodor.org/interactivate/activities/GeneralCoordinates/</a></p> <p><b>Measurement conversions</b> -Ex. Grams to Kilograms, Miles to Feet etc.</p> <p><b>Area, perimeter &amp; volume:</b> <a href="https://www.ixl.com/">https://www.ixl.com/</a> 6th Grade - Geometric Measurement: Lessons FF.1 → FF.9 and FF.14</p> <p><a href="#">Triangle Inequality Theorem</a></p> <p><a href="#">Arithmetic Properties: identify, associative, commutative, distributive</a></p>	<p><b>Multiplication Fact Fluency &amp; Long Division</b></p> <p><b>Graphs &amp; Tables</b>- Look at magazines, newspapers &amp; online articles. Discuss the tables, charts, &amp; graphs &amp; their real world meaning. Ex. Stock market charts, weather patterns, etc.</p> <p><a href="https://www.ixl.com/">https://www.ixl.com/</a> 6th Grade - Data and Graphs: Lessons GG.11 → GG.13 GG.18 - GG.19 6th Grade - Statistics: Lessons HH.1 → HH.3</p> <p><a href="#">Box Plots</a></p> <p>Financial Literacy: Paying for College - College Board website is used by students to plan for college. Students are able to do a side-by-side comparison of college expenses &amp; enrollment requirements. <a href="https://bigfuture.collegeboard.org/compare-colleges">https://bigfuture.collegeboard.org/compare-colleges</a></p> <p>Also discuss how to pay for college - personal savings account, student loans, scholarships, grants, work study</p> <p>Discuss what can have a positive &amp; negative impact on a credit report &amp; how a negative item remains on a credit report.</p>

**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: [6 Math Manipulatives Page](#)