

Rockwall ISD

Math 6 Parent Guide

	1 st Grading Period	2 nd Grading Period	3 rd Grading Period	4 th Grading Period
Process TEKS <i>(How we <u>do</u> the math)</i>	<p>A Apply mathematics to problems arising in everyday life, society, & the workplace</p> <p>B Use a problem solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, & evaluating the problem-solving process & the reasonableness of the solution</p> <p>C Select tools, including real objects, manipulatives, paper & pencil, & technology as appropriate, & techniques, including mental math, estimation, & number sense as appropriate, to solve problems</p> <p>D Communicate mathematical ideas, reasoning, & their implications using multiple representations, including symbols, diagrams, graphs, & language as appropriate</p> <p>E Create & use representations to organize, record, & communicate mathematical ideas</p> <p>F Analyze mathematical relationships to connect & communicate mathematical ideas</p> <p>G Display, explain, & justify mathematical ideas & arguments using precise mathematical language in written or oral communication</p>			
Units	<p><u>Unit 1: Comparing & Ordering Rational Numbers, including Percents</u> 6.2ABCDE, 6.4EFG, 6.5C</p> <p><u>Unit 2: Rational Number Operations</u> 6.2BE, 6.3ABCDE, 6.14ABCDEFGH</p>	<p><u>Unit 2: Rational Number Operations (continued)</u> 6.2BE, 6.3ABCDE, 6.14ABCDEFGH</p> <p><u>Unit 3: Proportional Reasoning with Ratios, Rates, & Percents</u> 6.4BCDEGH, 6.5AB</p> <p><u>Unit 4: Equivalent Expressions</u> 6.7ABCD</p>	<p><u>Unit 5: One-Variable Equations & Inequalities</u> 6.9ABC, 6.10AB</p> <p><u>Unit 6: Algebraic Representations of Two-Variable Relationships</u> 6.4A, 6.6ABC, 6.11A</p> <p><u>Unit 7: Geometry & Measurement</u> 6.4H, 6.8ABCD</p> <p><u>Unit 8: Data Analysis</u> 6.12ABCD, 6.13AB</p>	<p><u>Unit 8: Data Analysis (continued)</u> 6.12ABCD, 6.13AB</p> <p><u>Unit 9: Deepening & Spiraling Readiness Standards</u> 6.3BCDE, 6.4BCEFG, 6.5B, 6.7AD, 6.9BC, 6.10A</p>
Topic Focus	<p><u>Unit 1:</u> Students will be introduced to the concept of percent. They will expand their understanding of a fraction as another way to write a division problem, convert between fractions & decimals, & convert between mixed numbers & improper fractions. Students will continue to generate equivalent forms of fractions, decimals & percent, order & locate rational numbers on a number line, classify numbers, & use inequality symbols to compare rational numbers.</p> <p><u>Unit 2:</u> Students will multiply and divide fractions & decimals, expand their understanding of decimals as fractional parts of a whole, recognize when a number is multiplied by a value less than one the product will decrease, & the product will increase when a number is multiplied by a value greater than one, & add, subtract,</p>	<p><u>Unit 2: (continued)</u></p> <p><u>Unit 3:</u> Students will understand proportional reasoning by exploring the relationship between proportions, ratios, & rates. Students will continue to deepen their understanding of proportional reasoning by applying the concepts of percent & scale factor while working with tables, graphs & money in real-world scenarios.</p> <p><u>Unit 4:</u> Students will extend Order of Operations to solve problems with exponents & rational numbers, find prime factorization, identify properties such as inverse, identity, commutative, associative & distributive. They will determine if two expressions are equivalent, & generate equivalent expressions using order of operations & properties of operations.</p>	<p><u>Unit 5:</u> Students will represent one-variable, one-step equations in multiple ways & define, identify, graph, interpret & solve one-variable, one-step inequalities.</p> <p><u>Unit 6:</u> Students will graph ordered pairs in all four quadrants, recognize multiplicative & additive relationships, & identify independent & dependent relationships & quantities.</p> <p><u>Unit 7:</u> Students will extend knowledge of triangles to include the Triangle Inequality Theorem & side length/angle relationship. With quadrilaterals & triangles, students will decompose & rearrange parts to model area formulas, write equations & determine solutions to find the area of quadrilaterals & triangles & find volume of rectangular prisms. Students will also convert within the same measurement system.</p>	<p><u>Unit 8: (continued)</u></p> <p><u>Unit 9:</u> Students will deepen their knowledge of 6th grade standards as they review & apply all TEKS to problem situations.</p>

	<p>multiply, & divide integers. Students will also learn about paying for college, annual salaries, & credit reports.</p>		<p>Unit 8: Students will create, analyze, & summarize data in dot plots, stem-&-leaf plots, histograms, box plots & percent bar graphs. They will describe the graphs' shape, center, & the spread of data. Students will use academic vocabulary such as skewed, symmetric, mean, median, mode, & range, with variability & without variability, to describe sets of data. In financial literacy, students will revisit credit reports, compare methods of paying for college, & compare annual salaries of different occupations using tables & graphs.</p>	
<p>Suggestions for Parental Involvement/ Support</p>	<p>Real world fractions - While cooking together, discuss measurements increasing with decreasing serving size.</p> <p>Percents - Discuss sale discounts & how to mentally calculate 10% of a whole number & use this to find other percents such as 20%, 25%, 50% & 75% of the item. Relate percent to \$1.00, to reinforce percent is out of 100. $\frac{1}{4}$ of a dollar is \$.25, $\frac{1}{2}$ of a dollar is \$.50 & $\frac{3}{4}$ of a dollar is \$.75.</p> <p>Have your child calculate the tip on a meal by rounding the price of the meal to the nearest whole number.</p> <p>Fraction, Decimal, & Percent Visual Models</p> <p>Integers - (Real World Positive & Negative Numbers) Adding, Subtracting, Multiplying & Dividing Integers</p> <p>Discuss weather & temperature changes. "It's 25 degrees & drops 28, now it is -3 degrees. Discuss credits & debits, deposits & withdrawals. What does it mean when an account is overdrawn? Discuss above & below sea level</p> <p>Financial Literacy - Discuss the different ways to pay for college.</p>	<p>Proportionality - Practice generating & making equivalent fractions. Also, practice simplifying fractions.</p> <p>Unit Rate - 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>Ratios, Rates, & Proportions</p> <p>Solving Scale Factor Problems</p> <p>Prime Factorization</p>	<p>Inequalities - Solve 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>Coordinates - Play Battleship</p> <p>https://www.geogebra.org/geometry</p> <p>http://www.shodor.org/interactivate/activities/GeneralCoordinates/</p> <p>Arithmetic Properties: identify, associative, commutative, distributive</p> <p>Measurement Conversions -Discuss conversions (Ex. Grams to Kilograms, Pound to Ounces, Miles to Feet, etc.) using kitchen items & other household items & situations.</p> <p>Area of a Parallelogram</p> <p>Triangle Inequality Theorem</p>	<p>Graphs & Tables- Look at magazines, newspapers & online articles. Discuss the tables, charts, & graphs & their real world meaning. Ex. Stock market charts, weather patterns, etc.</p> <p>Box Plots</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 & enrollment requirements. https://bigfuture.collegeboard.org/compar-e-colleges</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 & negative impact on a credit report & how a negative item remains on a credit report.</p>

(Saving Account, Student Loans,
Grants, Work Study & Scholarships)

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](#)