

Rockwall ISD

Math 6 Honors 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>Unit 1: <i>Comparing & Ordering Rational Numbers, including Percents</i> 6.2ABCDE, 6.4EFG, 6.5C, 7.2A</p> <p>Unit 2: <i>Rational Number Operations</i> 6.2BE, 6.3ABCDE, 6.14ABCDEFGH, 7.3AB, 7.13C</p> <p>Unit 3: <i>Proportional Reasoning with Ratios, Rates, & Percents</i> 6.4BCDEGH, 6.5AB, 7.4ABCD, 7.5AC, 7.6G, 7.13ABDF</p>	<p>Unit 3: <i>Proportional Reasoning with Ratios, Rates, & Percents (continued)</i> 6.4BCDEGH, 6.5AB, 7.4ABCD, 7.5AC, 7.6G, 7.13ABDF</p> <p>Unit 4: <i>Equivalent Expressions</i> 6.7ABCD, 7.3AB</p> <p>Unit 5: <i>One-Variable Equations & Inequalities</i> 6.9ABC, 6.10AB, 7.10B, 7.11AB, 7.13D</p>	<p>Unit 5: <i>One-Variable Equations & Inequalities (continued)</i> 6.9ABC, 6.10AB, 7.10B, 7.11AB, 7.13D</p> <p>Unit 6: <i>Algebraic Representations of Two-Variable Relationships</i> 6.4A, 6.6ABC, 6.11A, 7.4ABC</p> <p>Unit 7: <i>Geometry & Measurement</i> 6.4H, 6.8ABCD, 7.5B, 7.8ABC, 7.9ABC</p> <p>Unit 8: <i>Data Analysis</i> 6.12ABCD, 6.13AB, 7.6G, 7.12A</p>	<p>Unit 8: <i>Data Analysis (continued)</i> 6.12ABCD, 6.13AB, 7.6G, 7.12A</p> <p>Unit 9: <i>Deepening & Spiraling Readiness Standards</i> 6.3BCDE, 6.4BCEFG, 6.5B, 6.7AD, 6.9BC, 6.10A</p>
Topic Focus	<p>Unit 1: 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>Unit 2: 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,</p>	<p>Unit 3: (continued)</p> <p>Unit 4: 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>Unit 5: Students will represent one-variable, one-step equations in multiple ways & define, identify, graph, interpret & solve one-variable, one-step inequalities. Students in Honors will write, model, & solve one-variable two-step equations & inequalities & determine if given values make the equations & inequalities true. They will also determine the minimum salary &</p>	<p>Unit 5: (continued)</p> <p>Unit 6: Students will graph ordered pairs in all four quadrants, recognize multiplicative & additive relationships, & identify independent & dependent relationships & quantities. Honors students will extend understanding of unit rates, ratios, & percent in multi-step problems, calculate percent of increase & decrease, & convert within measurement systems.</p> <p>Unit 7: 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. Honors</p>	<p>Unit 8: (continued)</p> <p>Unit 9: Students will deepen their knowledge of 6th grade standards as they review & apply all TEKS to problem situations.</p>

	<p>subtract, multiply, & divide integers. Students will also learn about paying for college, annual salaries & credit reports. Honors students will apply knowledge of all operations with rational numbers, & calculate sales & income tax.</p> <p>Unit 3: 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. Students in Honors will extend calculating unit rates & percent in multi-step problems, calculate percent increase & decrease, convert between units of measure, & apply these skills to financial literacy problems.</p>	<p>average hourly wages required for a household budget.</p>	<p>students will use models to determine circumference & area of a circle, & calculate area of composite shapes.</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. Honors students will also solve problems using graphs & compare groups of numerical data.</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>Proportionality - Practice generating & making equivalent fractions. Also, practice simplifying fractions.</p> <p>Constant of Proportionality</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>Budgets - Discuss the components of your family budget & the different bills you pay each month. Discuss bills that are variable or change each month, such as water, electricity, groceries & entertainment. Also, discuss fixed expenses, such as house payment & car payment.</p> <p>While shopping, compare prices to determine the better deal. Discuss how coupons & sales affect the price.</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>Intro to 2-Step Equations</p> <p>Coordinates - Play Battleship</p> <p>https://www.geogebra.org/geometry</p> <p>http://www.shodor.org/interactivate/activities/GeneralCoordinates/</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>Area of Composite Figures</p> <p>Relating Circumference & Area</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/compare-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>

	<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. (Saving Account, Student Loans, Grants, Work Study & Scholarships)</p>	<p>Is it a better deal to use a coupon or the sale price?</p>	<p><u>Arithmetic Properties: identify, associative, commutative, distributive</u></p>	
<p>General Resources</p>	<p>Khan Academy: https://www.khanacademy.org/math</p> <p>Math 4 Texas: https://www.math4texas.org/</p> <p>Imagine Math & Imagine Math Facts: Login through Google Dashboard</p> <p>Graham Fletcher Progression Videos: https://gfletchy.com/progression-videos/</p> <p>Interactive Math Glossary: https://www.texasgateway.org/resource/interactive-math-glossary</p> <p>Virtual Manipulatives & Strategy Charts: 6 Math Manipulatives Page</p>			