Rockwall ISD
Math 6 Honors Parent Guide

	1st Grading Period	2nd Grading Period	3rd Grading Period	4th Grading Period
Process TEKS *(How we <u>do</u> the math)*	**A** Apply mathematics to problems arising in everyday life, society, & the workplace **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 **C** Select tools, including real objects, manipulatives, paper & pencil, & technology as appropriate, & techniques, including mental math, estimation, & number sense as appropriate, to solve problems **D** Communicate mathematical ideas, reasoning, & their implications using multiple representations, including symbols, diagrams, graphs, & language as appropriate **E** Create & use representations to organize, record, & communicate mathematical ideas **F** Analyze mathematical relationships to connect & communicate mathematical ideas **G** Display, explain, & justify mathematical ideas & arguments using precise mathematical language in written or oral communication			
Units	**<u>Unit 1</u>:** *Equivalent Forms of Fractions, Decimals, & Percents* 6.2E, 6.4EFG, 6.5BC, 7.13B **<u>Unit 2</u>:** *Ordering Fractions, Decimals, & Integers* 6.2ABCD, 6.4G, 7.2A **<u>Unit 3</u>:** *Operations with Positive Fractions & Decimals* 6.2E, 6.3ABE, 6.14GH, 7.3AB, 7.13A	**<u>Unit 4</u>:** *Operations with Integers* 6.2B, 6.3CD, 6.14ABC, 7.13CF **<u>Unit 5</u>:** *Proportional Reasoning with Ratios & Rates* 6.4BCDEGH, 6.5AB, 6.14DEF, 7.4ABCD, 7.5AC, 7.6G, 7.13D **<u>Unit 6</u>:** *Equivalent Expressions* 6.7ABCD, 7.3AB	**<u>Unit 7</u>:** *One-Variable Equations & Inequalities* 6.9ABC, 6.10AB, 7.13D **<u>Unit 8</u>:** *Algebraic Representations of Two-Variable Relationships* 6.4A, 6.6ABC, 6.11A, 7.4ABC **<u>Unit 9</u>:** *Geometry & Measurement* 6.4H, 6.8ABCD, 7.5B, 7.8ABC, 7.9ABC	**<u>Unit 9</u>:** *Geometry & Measurement (continued)* 6.4H, 6.8ABCD, 7.5B, 7.8ABC, 7.9ABC **<u>Unit 10</u>:** *Data Analysis* 6.12ABCD, 6.13AB, 7.6G, 7.12A **<u>Unit 11</u>:** *Deepening & Spiraling Readiness Standards* 6.2D, 6.4BGH, 6.5B, 6.6C, 6.7AD, 6.8D, 6.10A, 6.11A, 6.12CD, 6.13A **<u>Unit 12</u>:** *Rational Number & Integer Operations Project-Based Learning* Apply all 6th grade standards to ensure mastery of grade level content
Topic Focus	**<u>Unit 1</u>:** 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 & decimals, & convert between mixed numbers & improper fractions. Also, students will understand the relationship between part, whole & percent. Pre-AP students will also identify components of a personal budget. **<u>Unit 2</u>:** Students will continue to generate equivalent forms of fractions, decimals & percent, identify a number, its opposite, & understand absolute value, order & locate rational numbers (includes fractions, decimals, & integers) on a number line, classify numbers, & use	**<u>Unit 4</u>**: Students will identify a number & its opposite, understand absolute value, use concrete & pictorial models for integer operations, perform all operations with integers, distinguish between debit & credit cards, & balance a checkbook. Pre-AP students will understand the difference between asset & liability, calculate net worth, & calculate final cost after using a coupon, a percent discount or rebate. **<u>Unit 5</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.	**<u>Unit 6</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. Pre-AP students will apply & extend previous understandings of operations to solve problems using rational number operations. **<u>Unit 7</u>:** Students will define, identify, graph, interpret & solve one-variable, one-step equations & inequalities in multiple ways. Pre-AP will also determine hourly wage required for a household budget. **<u>Unit 8</u>**: Students will graph ordered pairs in all four quadrants, recognize multiplicative & additive relationships,	**<u>Unit 9</u>:** (continued) **<u>Unit 10</u>:** Students will create, analyze & summarize data in dot plots, stem-and-leaf plots, histograms, box plots and percent bar graphs. Students 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. Pre-AP students will also solve problems using graphs & compare groups of numerical data.

	inequality symbols to compare rational numbers. **Unit 3**: 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, & the value will increase if the number is multiplied by an improper fraction or mixed number. Students will also learn about paying for college & annual salaries. Pre-AP students will apply knowledge of all operations with rational numbers, & calculate sales & income tax.	Students will also learn about credit reports. Pre-AP students 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.	& identify independent & dependent relationships & quantities. Pre-AP students will extend understanding of unit rates, ratios, & percent in multi-step problems, convert within measurement systems, & financial literacy problems. **Unit 9:** 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. Pre-AP students will use models to determine circumference & area of a circle, & calculate area of composite shapes.	**Unit 11**: Students will review & deepen their understanding of all 6th grade standards in preparation for the STAAR test. **Unit 12:** Students will apply all 6th grade standards to ensure mastery of grade level content.
Suggestions for Parental Involvement / Support	**Multiplication Fact Fluency and Long Division** **Real world fractions** - Cooking together & discussing measurements & increasing with decreasing serving size. **Percents** - Items on sale, discuss discounts & how to mentally calculate 10% of a whole number & use this to find others percents such as 20%, 25%, 50% & 75%. Relate percent to $1.00, to reinforce percent is out of 100. ¼ of a dollar is $.25, ½ of a dollar is $.50 & ¾ 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. https://www.ixl.com/ 6th Grade-Percents: Lessons S.1 → S.10 **Financial Literacy** - Discuss the different ways to pay for college. (Saving Account, Student Loans, Grants, Work Study & Scholarships)	**Multiplication Fact Fluency and Long Division** **Integers** - (Real World Positive & Negative Numbers) Adding, Subtracting, Multiplying & Dividing Integers 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 **Proportionality** - Practice generating & making equivalent fractions. Also, practice simplifying fractions. **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 While shopping compare prices to determine the better deal.	**Multiplication Fact Fluency and Long Division** **Inequalities** - 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. . **Coordinates** - Play Battleship https://www.desmos.com/ http://www.shodor.org/interactivate/activities/GeneralCoordinates/ **Measurement conversions** -Ex. Grams to Kilograms, Miles to Feet etc. **Area, perimeter & volume** - https://www.ixl.com/ 6th Grade - Geometric Measurement: Lessons FF.1 → FF.12 and FF.14 Triangle Inequality Theorem Arithmetic Properties: identify, associative, commutative, distributive	**Multiplication Fact Fluency and Long Division** **Graphs & Tables**- Look at magazines, newspapers & online articles. Discuss the tables, charts, & graphs & their real world meaning. Ex. Stock market charts, weather patterns, etc. https://www.ixl.com/ 6th Grade - Data and Graphs: Lessons GG.11 → GG.13 GG.18 - GG.19 6th Grade - Statistics: Lessons HH.1 → HH.3 Box Plots **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 Also discuss how to pay for college - personal savings account, student loans, scholarships, grants, work study

	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 has water, electricity, groceries & entertainment. Also, discuss fixed expenses, such as house payment & car payment.			Discuss what can have a positive & negative impact on a credit report & how a negative item remains on a credit report.
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			