

Rockwall ISD

Math 5 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>	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	<i>Routine (Embedded Throughout Term 1)</i> 5.3AK, 5.4B <u>Unit 1: Place Value & Algebraic Relationships</u> 5.2ABC, 5.3BCK, 5.4AEF, 5.9AC, 5.10CDEF <u>Unit 2: Multiplication & Division with Decimals</u> 5.3BCDEFG, 5.4BEF, 5.9AC, 5.10AB <u>Unit 3: Operations with Fractions & Decimals (comparing, improper, mixed, equivalent, & simplifying fractions)</u> 5.3HIJKL, 5.4AEF, 5.9AC, 6.2E, 6.3ABE, 6.4F	<i>Routine (Embedded Throughout Terms 2-4)</i> 5.3ABCK, 5.4BF <u>Unit 3: Operations with Fractions & Decimals (comparing, improper, mixed, equivalent, & simplifying fractions) (continued)</u> 5.3HIJKL, 5.4AEF, 5.9AC, 6.2E, 6.3ABE, 6.4F <u>Unit 4: Equivalent Forms of Fractions, Decimals, & Percents</u> 6.4EFG, 6.5C	<u>Unit 5: Patterns on a Coordinate Plane & Algebraic Relationships</u> 5.4BCD, 5.8ABC, 5.9BC, 6.2BC, 6.4A, 6.11A <u>Unit 6: Geometry & Measurement Applications</u> 5.4BGH, 5.5A, 5.6AB, 5.7A <u>Unit 7: Extending Numerical Relationships</u> 6.7AD	<u>Unit 7: Extending Numerical Relationships (continued)</u> 6.7AD <u>Unit 8: Deepening & Spiraling Readiness Standards</u> 5.2B, 5.3EGK, 5.4CH, 5.5A, 5.8C, 5.9C
Topic Focus	<u>Unit 1:</u> Students will extend their knowledge of place value to the thousandths by representing using expanded notation & numerals, rounding decimals, & comparing/ordering decimals. They will solve problems to include adding & subtracting decimals to the thousandths, multiplying 3-digit by 2-digit whole numbers, & dividing a 4-digit dividend by a 2-digit divisor. They will be introduced to identifying prime & composite numbers & simplifying numerical expressions. Students will solve one- & two-step problems from frequency tables, bar graphs, & dot plots. They will identify advantages &	<u>Unit 3: (continued)</u> Students will represent & solve addition & subtraction of fractions with unequal denominators using objects, pictorial models, & properties of operations. They will represent & solve multiplication & division of fractions to include dividing a whole number by a unit fraction & a unit fraction by a whole number, as well as multiplying a whole by a fraction to include simplifying expressions. They will extend their understanding of rational number representations & operations by means of the following: understanding the fraction bar is a representation for division & the relationship between multiplication &	<u>Unit 5:</u> Students will continue to represent & solve multi-step word problems involving the 4 operations using equations with a letter standing for the unknown quantity. They will identify a number, its opposite, & its absolute value, as well as locate, compare, & order integers & rational numbers using a number line. They will generate numerical patterns when given a rule, graph outcomes, & compare two rules verbally, numerically, graphically, & symbolically in order to differentiate between additive & multiplicative relationships. Students will be able to describe the key attributes of the coordinate plane, graph, & describe the process of	<u>Unit 7: (continued)</u> Students will extend their knowledge of order of operations to include exponents & prime factorization. They will generate equivalent numerical expressions using the order of operations & the properties of operations: inverse, identity, commutative, associative, & distributive. <u>Unit 8:</u> Students will deepen their knowledge of 5th grade standards as they review & apply all TEKS to problem situations.

	disadvantages of different forms of payment, as well as balance a simple budget. Unit 2: Students will be introduced to finding products & quotients of decimal numbers to the hundredths using objects, pictorial models- including area models, & the standard algorithm. They will represent & solve multi-step problems with whole numbers & unknowns/variables & simplify numerical expressions. Students will solve one- & two-step problems using data from frequency tables, dot plots, bar graphs, & stem-&-leaf plots, including decimal numbers, & represent categorical data with bar graphs or frequency tables & numerical data with dot or stem-&-leaf plots. Students will also define types of taxes & explain the difference between gross & net income. Unit 3: (see next term)	division of reciprocals, determining when a fraction is multiplied by a number whether the value will increase or decrease, & represent benchmark fractions. Students will solve 1- & 2-step problems from data found in frequency tables, bar graphs, & dot plots. Unit 4: Students will use equivalent fractions, decimals, & percents to represent the same whole extending their prior knowledge of fraction & decimal relationships. They will represent percents with concrete models, fractions, & decimals, including percents of benchmark fractions & their multiples using 10 by 10 grids, strip diagrams, number lines, & numbers. They will also generate equivalent forms of fractions, decimals, & percent using real-world problems.	graphing ordered pairs of numbers in all 4 quadrants arising from mathematical & real-world problems, including those generated by number patterns or found in an input-output table. Students will represent discrete paired data on a scatterplot, & solve 1- & 2-step problems using data from a frequency table, dot plot, bar graph, stem-&-leaf plot, or scatterplot. Unit 6: Students will extend their understanding of 2D figures to classify & organize them into sets & subset. Students will represent & solve problems related to perimeter, area, & volume. They will convert customary & metric units. Unit 7: (see next term)	
Suggestions for Parental Involvement / Support	Place Value of Decimals - Have students make decimals cards up to three decimal places (thousandths) & have them compare, order greatest to least or least to greatest, & write in standard form, expanded form, & word form. Decimal Place Value videos Addition/Subtraction of Whole Numbers & Decimals - Have students use the decimal cards they created for Place Value & find the sum or difference. Include whole numbers up to hundred thousand. Student could then create real world situations (word problem) involving adding & subtracting decimals. When out shopping, apply reasonableness & estimation to calculate totals of items being purchased. Addition/Subtraction videos Multiplication - Have students practice their multiplication facts up through 12 x 12 (flash cards, computer games, phone/iPad apps).	Operations with Fractions - 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 $\frac{1}{2}$ cup of oil, but I don't have a $\frac{1}{2}$ measuring cup. What other size measuring cups could you use to make the $\frac{1}{2}$ cup? Two $\frac{1}{4}$ cups, four $\frac{1}{8}$ cups, etc.)</i> Fraction Operation videos	Integers - (Real World Positive & Negative Numbers) 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 Patterns & Coordinate Grids - Have your child identify, label, & practice plotting points (whole numbers, decimals, & fractions) on a coordinate plane (All four quadrants). Algebraic Thinking videos Geometry & Measurement - Have your child identify & solve for perimeter, area & volume problems. (Use real world items ex. Length, width & height of table top, bathtub, backyard) Coordinate Grid & Geometry videos Have your child identify, compare, contrast & find real world examples of all types of quadrilaterals	Order of Operations videos Math 5 Compacted solves problems that include exponents. Real world fractions - While cooking together, discuss measurements increasing with decreasing serving size. 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. Discuss equivalent forms of fractions, decimals, & percents, including money. (Ex. $\frac{1}{10} = 0.10 = 10\% = \text{one dime}$) Fraction, Decimal, & Percent Visual Models Spiraling Readiness Skills-

	Please continue to practice these facts throughout the school year. Multiplication/Division videos Division with Whole Numbers & Decimals - Practice standard algorithm. Remember to include remainders (left overs).		(parallelogram, rectangle, rhombus, square, trapezoid) Measurement & Data videos Data Analysis - Have your child create a survey & create tables, charts, or graphs that represent the data they collect. (dot plot, stem & leaf, bar graph, scatterplots)	Have your child practice adding, subtracting, multiplying & dividing whole numbers, decimals & fractions.
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			