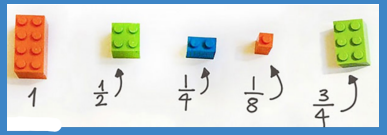
Rockwall ISD
3rd Grade Math Parent Guide

	1st Grading Period	2nd Grading Period	3rd Grading Period	4th Grading Period
Process TEKS *(How we do 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	**Unit 1:** *Place Value with Addition & Subtraction* 3.2ABCD, 3.4ABC, 3.5AE, 3.7BC **Unit 2:** *Multiplication & Division* 3.2A, 3.4DEHJK, 3.5BCDE, 3.6C	**Unit 2:** *Multiplication & Division (continued)* 3.2A, 3.4DEHJK, 3.5BCDE, 3.6C **Unit 3:** *Fraction Foundations* 3.3ABCDE, 3.6E, 3.7A **Unit 4:** *Data Analysis & Financial Literacy* 3.8AB, 3.9ABCDEF **Unit 5:** *Fraction Equivalency & Comparisons* 3.3EFGH, 3.7A	*Routine (Embedded Throughout Terms 3 & 4)* 3.2ACD, 3.4ABEK, 3.5AB **Unit 5:** *Fraction Equivalency & Comparisons (continued)* 3.3EFGH, 3.7A **Unit 6**: *Deepening Multiplication & Division* 3.4EFGIJK, 3.5BDE, 3.6CD **Unit 7:** *Geometry & Measurement* 3.6ABCDE, 3.7BDE	**Unit 7:** *Geometry & Measurement (continued)* 3.6ABCDE, 3.7BDE **Unit 8:** *Deepening & Spiraling Readiness Standards* 3.3ABCDEFGH, 3.4ABCDEFGHIJK, 3.5ABCDE, 3.6CE, 3.7A
Topic Focus	**Unit 1:** Students will compose, decompose, represent, & compare & order whole numbers extending to 100,000. They will solve one & two step word problems involving addition & subtraction to 1,000, & represent problems using pictorial models, number lines, & equations. Students will represent a number on a number line in order to round, determine the value of collection of coins & bills, & solve problems involving addition & subtraction of time intervals in minutes. They will also determine the perimeter of a polygon or a missing length when given perimeter & remaining side lengths in problems. **Unit 2**: Students will develop strategies such as repeated addition, equal groups, area models, arrays,	**Unit 2**: *(continued)* **Unit 3**: Students will represent fractions greater than 0 & less than or equal to 1 with denominators of 2, 3, 4, 6, & 8 using models, strip diagrams, & number lines, & they will determine the fraction of a given point on a number line. They will explain that a unit fraction represents one part of a whole. Students will compose & decompose fractions as a sum of its parts & solve problems by partitioning a whole or set among two or more recipients using pictorial representations. They will make connections between the area of congruent 2-dimensional shapes to fractions by decomposing 2, 2-dimensional shapes into parts with equal areas representing each part as a unit fraction of the whole, as well as	**Unit 5**: *(continued)* **Unit 6:** Students will recall & represent multiplication facts up to 10 by 10. They will determine if a number is even or odd using divisibility rules, & use strategies to solve & represent multiplication & division problems (up to 2- by 1-digit multiplication & within 100 division) using pictorial models (including arrays, area models, & equal groups), properties of operations, recall of facts, & strip diagrams. They will also make connections between multiplication & division by determining the unknown whole number in a multiplication or division equation. Students will represent real-world relationships using number pairs in a table & verbal descriptions. They will determine the area of rectangles with whole number side lengths in problems	**Unit 7:** *(Continued)* **Unit 8:** Students will deepen their knowledge of 3rd grade standards as they review & apply all TEKS to problem situations.

	number lines, & skip counting in order to solve one-step multiplication word problems within 100. They will represent multiplication facts using a variety of approaches to determine the unknown whole number in a multiplication or division equation, & determine a quotient using the relationship between multiplication & division. They will represent real world relationships using number pairs in tables & verbal descriptors, & determine the area of rectangles with whole number side lengths in problems using multiplication related to the number of rows times the number of unit squares in each row.	recognizing that equal shares of identical wholes need not have the same shape. **Unit 4**: Students will summarize a data set with multiple categories using a frequency table, dot plot, pictograph, or bar graph with scaled intervals. They will solve one- & two-step problems using categorical data represented with frequency table, dot plot, pictograph or bar graph. Students will explain the connection between labor & income, describe the relationship between availability & scarcity & how it impacts cost. They will list reasons to save & explain benefits of a savings plan. **Unit 5**: Students will represent equivalent fractions with denominators of 2, 3, 4, 6, 8 using objects, pictorial models, & number lines. They will explain how fractions are equivalent using number lines & area models. Students will compare two fractions having the same numerator or denominator using symbols, words, objects & pictorial models (*not* limited to denominators of 2, 3, 4, 5, 6, 8).	using multiplication related to the number of rows times the number of unit squares in each row, & decompose composite figures formed by rectangles into non-overlapping rectangles to determine the area of the original figure using the additive property of area. **Unit 7:** Students will use attributes to recognize & draw examples of quadrilaterals. They will determine the area of rectangles using multiplication & by decomposing composite figures. They will determine the perimeter of a polygon or a missing length when given the perimeter in a problem. Students will classify & sort 2D & 3D figures based on attributes using formal geometric language. Students will determine when it is appropriate to use measurements of liquid volume (capacity) or weight, & determine liquid volume & weight using appropriate units & tools.	
Suggestions for Parental Involvement / Support	**Decomposing & Composing Numbers** - Practice building numbers in different ways with different groups of 10s, 100s, 1000s, & 100,000s, *(ex. 8,969 = 8,000 +900+60+9)* **Addition/Subtraction** - Have students create a number line or strip diagram to represent an addition or subtraction situation involving a story. *(ex. We had 24 cans of soda. This week Jan drank 12 and Sarah drank 6. How many sodas do we have left in the fridge?)* 24 12 | 6 | ? **Number Fluency** - Roll dice & add the numbers that come up. Add up the totals until you reach a target number, like 100. Play the game backwards to practice subtraction.	**Multiplication/Division** - Let your child make different groups and add those groups together to find a total. *(ex. 3 groups of 4 eggs will equal 12 eggs total).* Let your child write equations to represent the scenario. (*ex. Fred had 45 toy cars to place on 5 shelves. How many cars will be on each shelf?)* Generate lists of paired numbers based on real life situations such as the number of wheels on two bikes number of juice boxes in 5 packages, etc. **Fractions-**Use Legos to show fractions with denominators of 2, 3, 4, 6, & 8.  **Money** - Give students a set budget they can "spend" (i.e. $100) and let	**Even/Odd** - Give your child a number & have them tell you whether it is even or odd. Make it look like a game. **Multiplication/Division** - Let your child make different groups and add those groups together to find a total. *(ex. 3 groups of 4 eggs will equal 12 eggs total)* Let your child take a total and divide it into groups. *(ex. Separate 12 eggs into 4 groups of 3)* Let your child write equations to represent the scenario **Multiplication**- Review & master multiplication facts through 10 by 10. Use Imagine Math Facts. **Fractions** - Practice counting fractional parts of groups or divide whole objects into equal parts. When dividing objects, have your child notice how equivalent amounts may have different shapes.	**2D/3D Shapes** - Have students identify different shapes within the house or when driving around town. Have them describe similarities and differences. Include different types of quadrilaterals- Types of Quadrilaterals & solids Recognizing 3D shapes **Liquid Volume & Weight**- Have your child identify the unit of measurement for liquid items used in the home. Allow your child to measure the weight of other household items. Continue to review tasks from the 1st, 2nd, & 3rd grading periods.

	Word Problems - Have students represent addition or subtraction scenarios using different tools such as a number line, pictures, strip diagram or manipulatives. (*ex. Parker has 764 baseball cards. He gave 179 to his brother, Preston. How many cards does Parker have now?)*	them decide on items they would purchase that fits their budget. Discuss making a savings plan.		
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/ **Bedtime Math :** http://bedtimemath.org/ **Interactive Math Glossary:** https://www.texasgateway.org/resource/interactive-math-glossary **Virtual Manipulatives & Strategy Charts:** 3 Math Manipulatives Page			