Rockwall ISD
2nd 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	*Routine Terms 1 & 2 (Embedded Throughout)* 2.2EF, 2.4AB, 2.5A, 2.9G **Unit 1**: *Addition & Subtraction using Place Value Strategies (without algorithms)* 2.2ABCD, 2.4CD, 2.7BC, 2.9C **Unit 2**: *Understanding Shapes & Solids (2D, 3D, & Area Foundations)* 2.8ABCDE, 2.9F	**Unit 3**: *Multi-Digit Addition & Subtraction (without algorithms)* 2.2AB, 2.4CD, 2.5AB, 2.7C **Unit 4**: *Data Analysis & Financial Literacy* 2.10ABCD, 2.11ABCDEF	*Routine Terms 3 & 4 (Embedded Throughout)* 2.2EF, 2.4AB, 2.5A, 2.7A, 2.9G **Unit 5**: *Multiplication Division Foundations* 2.6AB, 2.7A **Unit 6**: *Multi-Digit Addition & Subtraction (with algorithms)* 2.4CD, 2.7C, 2.10CD **Unit 7**: *Understanding Fractions* 2.3ABCD, 2.8E	**Unit 7**: *Understanding Fractions (continued)* 2.3ABCD, 2.8E **Unit 8**: *Deepening Addition & Subtraction (with algorithms)* 2.4BCD, 2.7C, 2.9C, 2.10CD **Unit 9**: *Linear Measurement* 2.9ABCDE
Topic Focus	**Unit 1:** Students will deepen their understanding of place value & number relationships for numbers up to 1,200. Students will use a variety of place value strategies to solve & represent addition & subtraction problems, & will generate & solve problem situations from a given number sentence. The first semester will focus on 2-digit addition & subtraction that includes regrouping using strategies & math tools, such as base-10 blocks, number lines, counters, etc., but will not include the standard algorithm. The processes, structures, & materials that will be used throughout the year during Math Workshop will be introduced in Unit 1, which will establish a mathematical community in the classroom.	**Unit 3**: Students will explore word problems involving addition & subtraction using strategies such as concrete & pictorial models, compatible numbers, place value, number lines & strip diagrams to represent & solve given problem scenarios. Students will explore money values up to $1.00 using cent symbol, dollar sign & decimal point to name a collection of coins. **Unit 4**: Students will collect & organize data (up to four categories) using classroom surveys & shapes. They will represent their data using bar graphs & pictographs with intervals of one or more. Students will draw conclusions to write & solve word problems involving addition & subtraction using the data represented in the graphs.	**Unit 5**: Students will model, create & describe contextual situations involving multiplication & division by joining & separating equal sets of concrete objects. Students will apply this learning to determine whether a set up to 40 is even or odd based on the rule that an even number can be separated into 2 equal sets using whole numbers. **Unit 6**: Students will apply knowledge of addition & subtraction strategies to the algorithm of two digit addition & subtraction. Students will use the algorithm & other strategies to find solutions to contextual situations involving addition & subtraction with various start, change & result unknowns. Students will write, generate & solve one-step word	**Unit 7:** (continued) **Unit 8**: Students will apply knowledge of addition & subtraction strategies to the algorithm of two & three digit addition & subtraction with regrouping. Students will use the algorithm & other strategies to find solutions to contextual situations involving addition & subtraction. Students will write, generate & solve multi-step word problems &/or using data represented in graphs. **Unit 9:** Students will explore measuring length. They will find the lengths of various objects using the nearest whole number to mark the distance on the measuring tool (may not start at 0) & solve problems related to length including estimating.

	Unit 2: Students will explore 2D & 3D figures by creating, classifying, sorting, composing & decomposing shapes based on their given attributes & geometric parts. Students will communicate their learning & understanding using formal geometric language. Students will also use concrete models to find the area of a rectangle (a square can be a rectangle) & describe its value using a number & unit.	Students will also explore financial literacy concepts, such as saving & spending, borrowing & lending, & producers & consumers.	problems using data represented in graphs.
			Unit 7: Students will explore fractions by composing & decomposing shapes, partitioning objects into equal parts & comparing fractional parts to a whole. Students will use concrete objects to count fractional parts up & over one whole. They will identify examples & non-examples of halves, fourths, & eighths.	
Suggestions for Parental Involvement / Support	**Decomposing & Composing Numbers** - Practice building numbers in different ways with different groups of 10s & 1s. *(ex. 89 = 80 + 9 or 70 + 10 + 5 + 4)* **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 we drank 12. How many sodas do we have left in the fridge?)* 	24	
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12	? | **2D/3D Shapes** - Have students identify different shapes within the house or when driving around town. Ask your child what two or more shapes can be put together to create the shape they see. *(ex. Your student sees a rhombus. Ask them what shapes can make a rhombus?-two triangles)*	**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. **Word Problems** - Have students represent addition or subtraction scenarios using different tools such as a number line, pictures, strip diagrams or manipulatives. **Money** - Have students practice adding a collection of coins to make $1.00. Practice skip counting by 5's, 10's, & 25's. **Telling Time**- practice telling time to the minute on an analog & digital clock. Discuss activities that would be done during the a.m. & p.m.	**Even/Odd** - Give your child a number & have them tell you whether it is even or odd. Use objects & make pairs to determine if the number is even or odd. **Multiplication/Division** - Let your child make different groups & 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 & divide it into groups. *(ex. Separate 12 eggs into 4 groups of 3) NOTE: The multiplication/ division symbols are not taught in 2nd grade.* **Addition/Subtraction** - Practice making connections between the algorithm & regrouping 10s and 1s to add or subtract. (Addition example , Subtraction example)	**Fractions** - Practice counting fractional parts up & over 1 whole. *(ex. One-fourth, two-fourths, three-fourths, five-fourths, six-fourths & so on)* Allow your child to help divide food (sandwiches, etc.) into fourths, halves, & eighths, & count the fractional parts beyond 1 whole (ex. 1 & half sandwiches is 3 halves); Practice identifying examples/ non-examples of fourths, halves, & eighths. NOTE: The fraction symbol is not taught in 2nd grade -- Word Form only (i.e. one fourth, three eighths)* **Addition/Subtraction** - Roll dice or flip playing cards to create 2 3-digit numbers. Practice adding or subtracting these numbers using the traditional algorithm. Create stories with your child that could model the problems. **Measurement** - Have students estimate the length of objects around the house & then see how close they get using a ruler, meter stick, or measuring tape.
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: **2 Math Manipulatives Page**		