Third Grade Math Activities for Home

Measurement Topic		At home, your child can . . .
Numbers and Operations in Base Ten		• create two numbers over 100. While adding, have your child explain how place value helps determine whether to compose a 10 or 100. • use multiple strategies to subtract 3 digit numbers found in a magazine or book. Ask your child to analyze which strategy is most efficient to solve the problem. • work collaboratively to identify 5 numbers that would round to 400. Discuss the strategies used to round the numbers. • find and explain patterns in 2's, 5's, and 10's, 0's, 1's multiplication facts. • discuss and identify scenarios during meals when you can separate objects in equal groups or shares. • collaborate with a friend or sibling to generate division equations that represent a scene outside a window or in a store. • identify a unit fraction within a whole object. <u>Example</u>: Look at a whole graham cracker. What is the unit fraction if it is broken into 4 equal pieces?
Operations and Algebraic Thinking		• create and solve two step word problems based on real life situations. e.g. Johnny drove 238 miles to an amusement park. Sarah drove 52 miles more than Johnny. Andrea drove 87 miles less than Sarah. How many miles did Andrea drive to the amusement park? • solve and explain one- and two-step addition and subtraction word problems that represent scenarios in their everyday life. • use tiles as square units to form rectangular figures and identify equations to find the area using the number of rows and columns. • identify and write equations for real-life situations when things must be shared (divided) into equal groups. • use flashcards, playing cards, dice, etc. to solve basic multiplication facts of 2, 5, 10, 0, and 1 by memory. • play a hop-scotch game to practice skip counting strategies to find the products of given multiplication equations. <u>Example</u>: To practice products of 5 --» write on the ground all products in order, then after given a multiplication equation, hop-scotch to the correct product while calling out each product along the way. • write multiplication or division equations that match drawings or pictures found in magazines or newspapers. Think about and discuss the reasoning as to why the equation matches the drawing or picture. • locate objects found around the home (ex: shoes, socks, forks) to create models of multiplication and division equations with an unknown. Monitor and discuss how the model matches the given equation. <u>Example</u>: Model $6 \times f = 18$ by seeing how many groups of 6 tennis balls make a total of 18 tennis balls. • use flashcards, playing cards, dice, etc. to solve basic multiplication facts of 2, 5, 10, 0, 1, 4, 8, 9, 3, 6, and 7 by memory. • identify situations at home where multiplication or division are used and write an equation. • create an expense goal, write and solve a word problem and number sentence with an unknown that represents the goal. <u>Example</u>: Our family created a goal to buy a new refrigerator that costs $500. If we save $50 each week, how many weeks will we need to save to be able to buy the refrigerator? ($50 \times w$ = $500)

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Measurement and Data	• discuss situations for when and why it would be important to measure area. • find, measure, and compare examples of area in your home or around your community. <u>Example:</u> Use square sticky notes to measure the area of various rectangular table tops or book surfaces. • analyze and explain whether the area of a rectangular figure changes based on horizontal or vertical positioning using plane figures. • locate rectangular plane figures at the grocery store and evaluate addition and multiplication equations to find the total area of the figure. • map out of a room in your house on graph paper and explain how to partition the shape to find the area. • use the grams of a given product, such as jelly, to determine what the total mass would be for several containers. • determine the area and perimeter of windows in the home. Illustrate and label findings to determine if any windows have the same perimeter and different areas or the same area and different perimeters.
Number and Operations - Fractions	• take a walk around the neighborhood and justify whether objects are split into equal or unequal parts. If an object does have an equal number of parts, identify the number of parts and the unit fraction. <u>Example:</u> equal parts = window panes (6 panes makes 6 parts so the unit fraction is $\frac{1}{6}$); unequal parts = garden • draw a number line from 0 to 1 on the ground using chalk, sidewalk paint, etc. and split each whole into an equal number of parts without labeling each part. As a friend or family member calls out a fraction (for example, $\frac{5}{6}$), stand on the mark that represents the given fraction and explain how the fraction on the number line. • use a ruler to measure three different sized straight edged magnets, crayons, or envelopes to the nearest $\frac{1}{2}$ inch and $\frac{1}{4}$ inch. Then compare the lengths and explain how fractions helped to measure the objects. • create a new and original fraction number line game. • find examples of food that are divided into equal parts (pizza, chocolate bar, graham crackers, orange slices). Represent the item by drawing a bar model. <u>Example:</u> If you have a pizza divided into eighths, draw a bar model that is also divided in eighths). Create and explain equivalent fractions using the bar model (e.g.: $\frac{2}{8}$ of the bar model is equal to $\frac{1}{4}$). • create two models of fractions with the same denominator using paper plates. <u>Example:</u> Show $\frac{3}{8}$ on one plate and $\frac{5}{8}$ on the other. Explain how the fractions compare by using the math terms greater than, less than, or equal to. • find two similar shaped objects that can be divided into halves (an orange and a plum or a book and a box). Show $\frac{1}{2}$ with each object and compare the halves. Explain if they are the same or not. Repeat this activity with other fractions.
Geometry	• set a goal to find a certain amount of quadrilateral shapes around the home to sort into the categories of rhombus, rectangles, and squares. Explain why some quadrilaterals can be sorted into multiple categories.