GETTING READY FOR 5TH GRADE MATHEMATICS

Use shopping advertisements; ask your student to round the change amount in different prices to the nearest whole dollar amount. If they are comfortable with rounding one price, ask them to estimate the sum of two or more items change amounts. Use a calculator to find the exact answer (if your student is comfortable with adding decimals mentally allow them to try first). How close is their estimate to the total? How can they make their estimates more accurate?

Working on: Using place value understanding to round whole numbers and decimals. Addition strategies based on place value and properties.

Help your child to see mathematics in the real world. Ask: "We need 3 pieces of silverware for our family and each guest and we will have 7 guests. How much silverware do we need?" Or, if we spend the same amount on groceries every week, how much will we spend in a month, two months and 1 week? Ask them to write a numerical expression that represents the different situations.

Working on: Solving word problems involving the four operations and using numerical expressions to represent mathematical situations.

Have your student create a number story for a given number model, such as (6 x 3) + 6 = 24. For example, "I have 6 dogs and they got 3 treats each for being good. That's 18 treats! Then, when mom got home, she gave them all another treat. That means, we gave them 24 treats today! Wow, that's a lot of treats!

Working on: This helps children understand that every number represents something (dogs, treats) and reason about what is happening when they work. This strategy will assist your child in solving two-step word problems using all four operations.

Use grocery advertisements to estimate the total cost if several of the same item were purchased. Find the exact answer with a calculator and compare it to the estimate. How close is the estimate to the actual answer? How can they make their estimates more accurate. Is it better to under estimate or over estimate a price while shopping? Next, give your student an item price and a total amount (calculate the exact amount on a calculator). Can they determine how many items can be purchased at that price for the given total?

Consider giving your child a 'pretend' family grocery budget. Have them plan how they would spend the budget and on what they would spend their budget.

Working on: Using place value to round and using multiplication and division strategies based on place value and properties.

Give your student a two-digit number and a one digit number (factors) and ask them to find the answer (product). Challenge them to find factors that will give the same product. Can they use more than two factors, three; how many factors can they use and get the same product? For example, starting with 24 x 3 = 48, we can decompose the 24 into smaller factors and make new problems such as (12 x 2 x 3) or (3 x 4 x 2 x 3). Or another example, 14 x 5 can become (7 x 2 x 5) and then (7 x 10). Ask your student if any of the problems seem easier than the original, why? Try this game using a two or three digit number with a 10. Will they notice it's possible to multiply by 10 last and add a place value to easily find the product? For example, 50 x 6 could become (5 x 10) x 6 and then (5 x 6) x 10 which is 30 x 10 or 300.

Play *I Spy* for geometrical figures using precise language. Start by giving one clue. For example, "I spy, with my little eye, something that has a right angle." Allow some reasonable guesses. If unable to do so, give another clue, for example "It is something that has a set of parallel sides." Allow more guesses. Continue providing geometric clues until the item is guessed. Use additional language such as congruent, vertices, parallel, perpendicular, acute/right/obtuse angles, etc.

Working on: Classifying two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size.

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Challenge your student in the kitchen. Ask them to use two different sized measuring cups to make one specific amount. For example, can they make 1½ cups total using the ¼ c. and ½ c measuring cups. Can they find more than one way to make the correct amount?

Ask your student to make amounts such as 1 cup or 1 ½ cups using the ⅓ c. or ⅔ c. measuring cups. Which amounts are possible to make? Can they make more amounts by using the ⅓ c. or ⅔ c. measuring cups and the ¼ c. and ½ c measuring cups together? Which amounts can they make?

Working on: Using visual fractions with like and unlike denominators to practice understanding equivalent fractions.

If traveling by car, note the odometer at the beginning of a trip, points along the way and/or the final destination. How many miles were traveled between points? In all? Practice with and without using the tenths. You can also practice rounding to the nearest whole mile. Using the whole number distances, ask your student to determine the same distance in yards, feet or inches. Use a map or mapping tool to plan a 'pretend' trip across the country. 1 mile= 1,760 yards= 5, 280 feet

Working on: Addition and subtraction including decimals, rounding to the nearest whole number and converting between different sized units of length in the customary system.

Look for sharing situations that will allow your student to think about how best to divide up objects including situations where they cannot be divided into whole numbers. For example, if there are 3 apples left and two of us will share them, how can we share so that we both will have the same amount? Or, during breakfast if there are 5 pancakes left and four people want to share them; is there a way to share all of the pancakes so that everybody will have the same amount?

Working on: Solving problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers.

Looking at prices, ask your student how many dimes and pennies are in the change portion of the price (ex. $4.99 would be .99 so 9 pennies and 9 dimes). Then ask them to round the price to the nearest whole dollar and tell you how many dimes it takes to make that total amount? How many pennies? (ex. $5.00 would be 50 dimes or 500 pennies). What if the amount were 10 times bigger, how many dimes and pennies would be needed then? What patterns are they noticing in the amounts?

Working on: Rounding the nearest whole number. Looking for and explaining patterns in place value and recognize that a digit in place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.

More resources on the web:

- WCSD enVisionmath2.0 login
- Washoe County School District Family & Community page
- Bedtime Math (5 minutes of math at different levels)
- Helping Your Child Learn Math (English) Free Book!
- Helping Your Child Learn Math (Spanish) Free Book!
- Problem solving & reasoning through coding (code.org)
- Online math tools & manipulatives
- Nrich tasks (includes problems to solve, games and activities)

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