GETTING READY FOR 4TH GRADE MATHEMATICS

While you are shopping or looking at an advertisement, ask your child to round the dollar amount to the nearest dollar/ten dollars. When you check out, round the total cost to the nearest 10- or 100-dollar amount. If your child seems to have that down, ask them to determine how much will be spent in a month if you spend approximately the same amount each week. How much will it cost for the summer (2 months)? **Working on**: Using place value understanding to round whole numbers to the nearest 10 or 100.	Help your child to see mathematics where you live. 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 "You have 36 water balloons to share between you and your 3 friends. How many water balloons should each of you get?" **Working on:** Basic multiplication and division using problems that naturally come up at home. Students can use strategies such as the relationship between multiplication and division, skip counting, or using a familiar fact as a benchmark and adding on or subtracting from.
Experiment in the kitchen. Using measuring cups, pour 1 cup of water into a clear bowl. Hand your child the $\frac{1}{2}$ cup or $\frac{1}{4}$ cup. Ask your child to figure out how many of their 'smaller' cups will be needed to fill a second clear bowl up to the same level as yours. Compare your 1-cup pour with one of your child's pours. Discuss how many more times they will need to pour their 'smaller' cup before they get 1 whole cup. **Working on:** Understanding two factions as equivalent (equal) if they are the same size, comparing two fractions with the same numerator or the same denominator by reasoning about their size, and recognizing fractions that are equivalent to whole numbers ($\frac{4}{4}$= 1 or 3 = $\frac{3}{1}$).	Ask your child to look for two-dimensional shapes (rectangles, triangles, squares, trapezoids, etc.) on objects where you live or outside. Have them explain how they know what each shape is. Ask them if any of their identified shapes have anything in common (# of sides or corners). Would it be possible to call them all the same thing? What makes one different from the other? **Working on:** Understanding that shapes in different categories (square, rectangle, rhombus) may share attributes (have four sides) and the shared attributes can define a larger category (quadrilaterals).

Say a factor 0-12. Have your child say another factor 0-12. For example, if you say 7, your child could say 3. Ask your child to identify the product. Keep track of what factors your child chooses to help identify comfort level.

Ask problems that use these 'known' or 'comfort' facts to help them solve other facts. For example, if the child chooses 5 and solves (4 x 5), then ask them to solve the same problem with a factor of 6 (4 x 6). The same idea can be used to practice division as well. You say a product less than 100 such as 25. Your child then identifies two factors that would equal that product.

Working on: Fluently multiplying and dividing within 100.

Math Cards: Printable cards to use with children to help build reasoning skills around basic facts.

Play Commercially Available Games: Many commercially available games may be used to practice mathematics. Games such as cribbage and rummy help support using reasoning strategies to quickly add.

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Ask your child to identify a variety of items where you live and estimate how many inches or feet long, they think it is. Use a ruler or tape measure and see how close they are to their estimation. Ask them additional questions such as, "If this was four times longer, how many feet would it be?" or "If this was 2 times shorter, how many inches would it be?" or "How many 1/2 inches are there since this is 5 inches?". **Working on**: Estimating measurement, measuring lengths using rulers, and solving multiplicative math problems (n times longer/shorter).	Use square blocks to build 'construction sites' or 'dance stages'. Find the area and perimeter of these quadrilaterals. Create several sites/stages at once and find the area and perimeter of them all combined. Ask them, is it possible to make two rectangles with the same perimeter but different areas OR with the same area but different perimeters? **Working on:** Relating area to the operations of multiplication and addition. Side lengths $a + b + a + b = (a + b) \times 2$ or $(2 \times a) + (2 \times b) =$ and solving problems involving perimeters, including finding the perimeter given the side lengths, and finding an unknown side length.
Have your child create a number story for a given number model, such as (6 x 3) + 6 = 24 For example, "I have 6 dogs and they each got 3 treats for being good. That's 18 treats! Then, when a family member got home, they 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) 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.	Look for license plates that have at least 3 digits. When you find one, say those numbers out loud. Ask your child to find a second license plate. Work together to either add or subtract those numbers. Then, use these numbers to estimate or round to the nearest 10 or 100. Play to find as many different 10's and/or 100's as you can. **Working on:** Add and subtract fluently within 1,000 using strategies and algorithms based on place value and/or the relationship between addition and subtraction and using place value understanding to round whole numbers to the nearest 10 or 100.

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 3 sides/edges." Allow some guesses and if needed, give another clue. "It is something that has only 1 vertical line of symmetry." 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; recognize a line of symmetry for a two-dimensional figure.

Adapted and Revised from the Ontario Ministry of Education's *Doing Mathematics with Your Child* and CESME, The University of Chicago Parent Resources.

More digital resources:

Scan QR code or click link:

Washoe County School District Family & Community page

https://www.washoeschools.net/Page/1074

WCSD enVisionmath2.0 login

Bedtime Math (5 minutes of math at different levels)

Helping Your Child Learn Math (English) or Helping Your Child Learn Math (Spanish) Free Book!

Problem solving & reasoning through coding (code.org)

Online math tools & manipulatives

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