# Get ready for Fourth Grade!

**In Grade 3, instructional time in math focused on four critical areas:**

**Critical Area One**
– developing understanding of multiplication and division and strategies for multiplication and division within 100

**Critical Area Two**
– developing understanding of fractions, especially unit fractions (fractions with numerator 1)

**Critical Area Three**
–developing understanding of the structure of rectangular arrays and of area

**Critical Area Four**
–describing and analyzing two-dimensional shapes.

The following summer math activities will enable your child to review math concepts and reinforce skills learned this year. Just a few minutes each day spent "thinking and talking math" will help reinforce the math that has been learned and begin to bridge the foundation for extending to the concepts that will be developed next year. The goal is for your child to have fun thinking and working collaboratively to communicate mathematical ideas. While your child is working, discuss the math concept being reinforced.

| Sun. | Monday | Tuesday | Wednesday | Thursday | Friday | Sat. |
|---|---|---|---|---|---|---|
| | 1 Read Fraction Fun by David Adler. Which is larger, 2/3 or 3/4? How do you know? Prove it. | 2 Masha had 120 stamps. First, she gave her sister half of the stamps and then she used three to mail letters. How many stamps does Masha have left? | 3 Try a new game at www.funbrain.com Challenge yourself. | 4 Read Pigs Will be Pigs: Fun with Math and Money b y Amy Axelrod. Get a menu from a restaurant and add up what it would cost for your family to eat there. | 5 When rounding to the nearest ten, what is the smallest whole number that will round to 50? The largest? How many different whole numbers round to 50? | 6 |
| 7 | 8 Compare the fractions below. Use the symbols >, =, or < to record your comparisons. Draw a picture to illustrate your answer. 2/6 and 5/6 1/2 and 1/3 | 9. Draw a 10 CENTIMETER number line that begins with 0 and ends with 1. Roll a die. Divide your number line into this number of equal segments. Label the segments. Explain your thinking. | 10 Rosa made 56 cupcakes. She put 8 cupcakes into each box and sold the boxes for $3.00 each. How much money did Rosa receive? | 11 Write a story problem that can be solved using the number sentence 9x3= . | 12 I am a number between 20 & 30. When you divide me into 6 equal groups, there is an even number in each group and 2 are left over. What number am I? Write your own division riddle. | 13 |
| 14 | 15 Arrange the fractions in order, beginning with the least. Explain your answer with a picture. 1/5, 1/7, 1/3 | 16 Use the numbers 3, 5, and 15 to write a multiplication number story. Write a related division story. Write a number sentence for each story. | 17 Find a newspaper and cut the articles or pictures out. Organize them by area from least to greatest. | 18. Figure your age in months. How many months old are you? | 19 Roll 2 dice and multiply to find the product. Record the products. Do this 25 times. Create a bar graph with the results. What do you notice? | 20 |
| 21 | 22 Draw a picture of a quadrilateral. Draw a picture of a rhombus. How are they alike? How are they different? | 23 Find 4 numbers larger than 1,000 in a newspaper. Put them in order from least to greatest. What is the difference between the smallest and the largest? | 24 Play Concentration at www.illuminations.nctm.org Choose cards: fractions games: face down Draw pictures that represent some fractions. | 25 Select ten items from a grocery flyer and find the total cost of the items. Calculate how much change you would receive from a one hundred dollar bill. | 26 The product of two numbers is 30. The sum of the two numbers is less than 20. What might the two numbers be? Show all possible solutions and explain your thinking. | 27 |
| 28 | 29. Write multiplication and division combinations for 6, 7, and 42. Can you write a word problem to go with these equations? | 30 When rounding to the nearest hundred, what is the smallest whole number that will round to 500? The largest? How many different whole numbers will round to 500? | | | | |

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| | | | 1   Write a word problem whose answer is 12. Have someone solve the problem. Choose another answer and make up a problem. | 2   There are 6 tables in Mrs. Potter's art classroom. There are 4 students sitting at each table. Each student has a box of 10 colored pencils. How many colored pencils are at each table? How many colored pencils in total? | 3   A farmer has chickens and cows. What combination of animals could total 24 legs? Is there more than one combination? | 4 |
| 5 | 6   Read The $1.00 Word Riddle Book by Marilyn Burns. What is your name worth? What is the most expensive word you can make? | 7   Choose 1 number: 2, 3, 5, or 6. Double the number you chose. Double the sum. Keep on doubling until you get a sum that is greater than 1,000. How close to 1,000 is the number you reached? | 8   Plan a meal for your family. With an adult, make a list of the ingredients, go shopping, and then follow the recipes. Are there fractions in your recipes? | 9   Have a scavenger hunt for real-world examples of right angles (ex. the corner of a book). | 10   Gather 3 store receipts. Find the total amount that was spent. | 11 |
| 12 | 13   Create the largest number possible using the **digits** 2,5,9,7. | 14   What is the **rule**? 3, 7, 11, 15, 19, 23 | 15.  Write in **expanded notation**. 6, 091 | 16   Round 867 to the **nearest hundred**. | 17   Circle the number in the **tens place**. 7 ,652 | 18 |
| 19 | 20 Sam put 48 cupcakes into boxes. He put 6 in each box. How many boxes did he fill with cupcakes? | 21   The pizza palace sold 120 slices of pizza yesterday. Today it sold 94. How many **fewer** slices did it sell today? | 22   Complete the **number sentences**: ( 49 – 19 ) + 8= ( 56 – 14 ) x 2= | 23 Draw an **array** with 25 x's arranged in 5 **columns**. | 24 Complete the number sentences: (20 + 8 ) –:– 2 = (9-6 )x3= | 25 |
| 26 | 27   Draw a **square**. Divide the shape by drawing one **diagonal**. What two shapes do you now have? | 28 Draw a visual model (picture) to show which fraction is larger. Use **>, <, =** to compare them. 1/3 _____1/4 | 29   The jogger ran 26 miles yesterday. He ran 19 miles today. How many **fewer** miles did he run today? | 30   Draw a right angle. | 31   What is the **area** of a rectangle that is 2 cm by 5 cm? | |

**Fourth Grade Math Literature:**

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| Pinczes, Elinor J. | A Remainder of One |
| Tang, Greg | The Best of Times: Math Strategies That Multiply |
| Cushman, Jean | Do You Wanna Bet? Your Chance to Find Out about Probability |
| Nagda, Ann Whitehead | Tiger Math: Learning to Graph from a Baby Tiger |
| Anno, Masaichiro | Anno's Mysterious Multiplying Jar |
| Tang, Greg | The Grapes of Math |
| Michelson, Richard | Ten Times Better |
| Adler, David A. | *Shape Up! Fun with Triangles and Other Polygons* |
| Burns, Marilyn | *The Greedy Triangle* |
| Burns, Marilyn | *Spaghetti and Meatballs for All!: A Mathematical Story* |
| Friedman, Aileen | *A Cloak for the Dreamer* |
| Tompert, Ann | *Grandfather Tan g's Story: A Tale Told with Tan grams* |
| McKissack, Patricia C. | *A Million Fish ... More or Less* |
| Schwartz, David M | *How Much Is a Million?* |
| | *On Beyond a Million An Amazing Math Journey* |
| Wells, Robert E | *Can You Count to a Googol?* |
| Hutchins, Pat | *The Doorbell Rang* |

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| Nagda, Ann Whitehead | *Polar Bear Math: Learning about Fractions from Klondike and Snow* |
| Adler, David A. | *Fraction Fun* |
| Clement, Rod | *Counting on Frank* |
| Pluckrose, Henry Arthur | *Know about: Capacity* |
| Schwartz, David M | *Millions to Measure* |
| Macaulay, David | *Pyramid* |
| Birch, David | *The King's Chessboard* |
| Demi, Hitz | *One Grain of Rice: A Mathematical Folktale* |