



Getting ready for Grade 6!

Up through Grade 5, instructional time in math focused on three critical areas:

Critical Area One

–Developing fluency with addition and subtraction of fractions, and developing understanding of the multiplication of fractions and of division of fractions in limited cases (unit fractions divided by whole numbers and whole numbers divided by unit fractions)

Critical Area Two

–Extending division to 2-digit divisors, integrating decimal fractions into the place value system and developing understanding of operations with decimals to hundredths, and developing fluency with whole number and decimal operations

Critical Area Three

–Developing understanding of volume– developing understanding of multiplication and division and strategies for multiplication and division within 100

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.

DOs and DON'Ts For Parents Helping at Home

DO:

- Expect your child to work hard and be good at math.
- Ask “How did you get that?” “Can you show me another way to do that?” “Remember how you did ____, see if you can use that same strategy.”
- Encourage your child to stick with a task even if it seems challenging.
- If you see signs of frustration, suggest leaving the problem for a day or two and returning to it with fresh perspective at another point.
- Listen carefully to how your child is thinking about math.

DON'T:

- Try not to tell your child how to figure something out; he or she will learn much more by figuring it out for him or herself. You can always say, “Show me how you figured that out.” Then wait and listen and say, “Oh, that’s nifty. Here’s how I might figure it out. How are our strategies the same?”

DO ASK – DON'T TELL You can ask great questions without telling your child what to do!

In the beginning....

What do you know?

What do you need to find out? How might you begin?

What should you do first?

While working....

How can you organize your information?

What would happen if...?

Do you see any patterns? Any relationships?

Does this remind you of any other problems you’ve done?

Can you make a drawing to explain your thinking?

What do you need to do next?

Can you predict....?

Reflecting on Solutions...

Is your solution reasonable?

How did you arrive at your answer?

Can you convince me that your solution makes sense? What did you try that didn’t work?

Responding...

Your response is as important as your initial question. Continue to discuss problems even after children have their answer. This will give your child a chance to clarify thinking and make more connections.

You can ask: How do you know that your answer makes sense? Do you know another way to solve this? Do you think there is more than one answer? How could we find out?

We hope that you will enjoy the activities, extend them, create new ones and have fun!

	Monday	Tuesday	Wednesday	Thursday	Friday	
Sunday	JULY 2018					Saturday
1.	2. 0.75 is the answer. What could the question possibly be? Challenge yourself to think of more questions.	3. Six friends have 4 sandwiches to share. What fraction of a sandwich would each person get? Can you find examples of similar problems?	4. Express the number 50 in at least 25 different ways. Use all 4 operations and include fractions and decimals.	5. Write an expression for: add 2 and 4 and multiply the sum by 3. Next, add 5 to that product and double the result.	6. Try a new activity at http://www.coolmath4kids.com/ Challenge yourself. What did you chose to do?	7.
8.	9. On Saturday, $\frac{3}{4}$ of a 5th grade class went to see a new movie. If $\frac{1}{2}$ of the class went to the afternoon session, what fraction of the class went to the evening session?	10. Count cricket chirps for 15 seconds. Add 39. This will give you the F. temp outside. Try it on 3 different days. Does it work?	11. Choose a favorite professional athlete, actor, or musician. And research his/her annual salary. How much does s/he earn in a month? A day?	12. A rectangle is twice as long as it is wide. Its width is $5\frac{1}{2}$ cm. Find the area of the rectangle.	13. The sum of two mixed numbers with unlike denominators is $5\frac{3}{5}$. What might the two mixed numbers be? Show as many different solutions as you can.	14.
15.	16. Tom build a backyard pen for his new puppy. The length of the pen was 6 $\frac{1}{4}$ meters and the width was 4 meters. What is the area of the pen?	17. 286,489 is an odd number. How many times greater is the 8 in the ten thousands place than the 8 in the tens place? Explain your thinking.	18. Monday through Friday a baker uses 1 and $\frac{1}{4}$ sacks of flour when baking cakes. Will the baker use more than or less than 5 sacks of flour from Monday through Friday?	19. Use four 4's to create problems that will equal 1-12. Remember to use the correct order of operations to solve your problems: Parentheses, Exponents, Multiply or Divide, Add or Subtract.	20. Deal 3 cards to make a 3-digit number. Even numbers are whole numbers. Odd numbers are decimals. Repeat this. Add the 2 #s. Turn over 3 new cards per turn. Continue to add the # to the last score. Game to 300.	21.
22.	23. You have $2\frac{5}{8}$ pizzas to share equally with 3 people. How much pizza will each person get?	24. Multiply two fractions together to get the number 1 What do you notice?	25. Write a story problem for this problem: $2 \div \frac{1}{3}$ Try to make the story about your summer.	26. There are 3 pizzas. Each child will get $\frac{1}{4}$ of a pizza. How many children will get pizza?	27. Place parentheses in the following equation to make it true. $6 + 6 \div 6 \times 6 - 6 = 0$	28

	JULY Monday	Tuesday	AUGUST Wednesday	Thursday	Friday	
	30. 286,489 is an odd number. How many times greater is the 8 in the ten thousands place than the 8 in the tens place? Explain.	31. Choose a geometry activity at Math Illuminations http://illuminations.nctm.org/Search.aspx?view=search&type=aC&st=g&gr=3-5-6-8	1. Play Sudoku from the newspaper or online. How did logic help you to solve the puzzle?	2. Is a 3 liter pitcher large enough to hold 25 cups of juice? Explain.	3. How many blades of grass are in a square yard of your backyard? Use logic, measurement, and problem solving strategies to find the answer.	4.
5.	6. Write a word problem for the equation: $\frac{1}{2} \times \frac{2}{3} = X$ Solve it!	7. Find the sum and difference between two decimals. Compare the two decimals using >, =, and < symbols.	8. Visit the website Figure This and look for a real life math Challenge. http://www.figurethis.org/index.html	9. Find a fraction or decimal in the newspaper. What did it relate to?	10. If you spend \$100.00 a day, how many days will it take to spend a million dollars? How many years is that? What would you buy?	11.
12.	13. I am a number less than 50. When divided by 5, my remainder is 4. Who am I? Is there more than 1 correct answer?	14. Evaluate the following numerical expression. $2 \times (5 + 3 \times 2 + 4)$ Can the parentheses in this expression be removed without changing the value of the expression?	15. Jen is 12 and Amy is 13. In 25 years, what will the products of their ages be?	16. Find the sum of the digits of your phone number. What numbers is it divisible by?	17. If you buy 3 books at \$3.95 each, how much change would you get from \$20.00?	18.
19.	20. I am an even 3-digit palindrome. (ex: 464) The product of the digits is 8. What number am I?	21. Round to the nearest hundredths place value: 60.747	22. Leo and Maria are comparing the product of 60×225 to the product of 30×225 . Mia says she can compare these products without multiplying the numbers. Explain how she might do this.	23. Robert has 986 paperback books. He wants to put these books on storage shelves. Each shelf can hold 50 paperback books. How many shelves will Robert need to hold all of the books?	24. The average cow can produce more than 45,968 glasses of milk in a year. There are 52 weeks in a year. About how many glasses of milk can a cow produce each week?	25.
26	27. Can you use $\frac{1}{8} \times \frac{2}{5}$ to solve this problem: There is $\frac{2}{5}$ of a pizza left. If Jamie eats another $\frac{1}{8}$ of the original whole pizza, what fraction of the original pizza is left over? Explain.	28. Read Guinness Book of Records by Time Inc. (or look online for world records) What record surprised you the most? Why?	29. Find two objects in your house for which the length of one is double the length of the other. Measure the length in centimeters.	30 Start with 3,542. Add 100 more. Subtract 50. Add 8. What's your number? Is this a square number? Make your own number problem.	31. Free Day! Sept. 4 is New student Orientation and Sept 5 is the first day of School!	

Math Book List

Author	Title
Wendy Isdell	A Gebra Named A
Jon Scieszka	Math Curse
Blue Balliett	Chasing Vermeer
Cindy Neuschwander	Sir Cumference & the First Roundtable Sir Cumference & the Dragon of Pi Sir Cumference & the Great Knight of Angleland Sir Cumference & the Sword in the Cone
Hans Magnus Enzensberger	Number Devil: A Mathematical Adventure
Rod Clement	Counting on Frank
Time Inc.	Guinness Book of Records
Luetta Reimer & Wilbert Reimer	Mathematicians are People Too