Getting ready for Third Grade!

In Grade 2, instructional time in math focused on four critical areas:

Critical Area One

- Extending understanding of base ten notation (place value).

Critical Area Two

- Building fluency with addition/subtraction.

Critical Area Three

- Using standard units of measure.

Critical Area Four

- Describing and analyzing 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.

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

DOs and DON'Ts for 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? ● Can you make a drawing to explain your thinking? ● What would happen if...? ● What do you need to do next? ● Do you see any patterns? Any relationships? ● Can you predict...? ● Does this remind you of any other problems you've done?	**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?	

20 Days of Summer Math Fun in JULY

1. Write all the addition facts that equal 10.	**2.** How many different ways can you cut a sandwich to show fourths?	**3.** Set out 4 bowls. Put 5 objects in each bowl. Write an addition sentence to show how many objects are in the 4 bowls.	**4.** Skip count by 2s, 5s, and 10s to 100. Write each pattern on your paper.	**5.** One way to make 12 is 8 + 4. Write 4 other addition facts for 12.
6. Look in your refrigerator. Categorize the items as dairy, fruit, vegetable, meat and other. Make a tally chart to explain your findings. Use words to summarize the tally chart.	**7.** Go on a Shape Hunt around your house! Look for items shaped like a square, rectangle, and triangle. Draw and label the items.	**8.** Using the numbers 63, 18, 30, 49, Which two numbers would you add to get the greatest sum? Add them together. Which two numbers would you add to get the smallest sum? Add them together.	**9.** What number is one more than 87? What number is one less than 87? What is 10 more than 87? What is 10 less than 87? What is 100 more than 87?	**10.** Jason swims in the pool from 1:10 p.m. to 1:45 p.m. Draw a clock to show the time at which he began to swim. How long did he stay in the pool?
11. Find many different coins. Sort the coins into groups of the same kind. What is the value of each group?	**12.** Draw a picture of the windows in your house. Describe their shape. Are they partitioned into equal shares? If so, how are they partitioned?	**13.** Susan emptied her pockets. To her surprise she found 1 quarter, 2 dimes, and 1 nickel. How much money does she have? Draw a picture to justify your answer.	**14.** What time did you go to bed last night? What time did you get up this morning? Draw 2 clocks and show these times. BONUS! How many hours did you sleep?	**15.** Create a timeline for yesterday beginning at the time at which you woke up and ending at the time you went to bed. Include at least 8 events on your timeline.
16. Order the numbers from least to greatest: 49, 7, 22, 98, and 3 Underline the odd numbers. What is the value (sum) of the odd numbers?	**17.** Solve the problems below. Then write a story problem to match the equations. 18 + 26 = 29 + 17 =	**18.** Write the missing numbers on the lines below to continue the patterns: 12, 15, 18, _____, _____, _____ 8, 12, 16, _____, _____, _____	**19.** Write these numbers from least to greatest: 7, 49, 3, 98, 59, 22	**20.** 50 is the answer. What could the question be? Come up with 4 more equations. For example: 60-10=50

20 Days of Summer Math Fun in AUGUST

1. Find a place outside where you can observe creatures. Watch for 10 minutes. Record what you see. Create a bar graph to show your data	**2.** Fold a piece of paper in half 2 times. Open it. How many rectangles? Now fold it in half again. How many rectangles? Fold it again. How many rectangles?	**3.** I am thinking of an odd number. It is greater than 33 and less than 40. You say it when you skip count by 5s. What number am I?	**4.** Write the addition and subtraction fact families for the following sets of numbers: 3, 5, and 8 23, 9, and 14	**5.** How many different ways can you cut a sandwich into fourths? Try it with real or paper sandwiches. Record your work with drawings!
6. Some 3D shapes are cylinders, cubes, spheres, cones, and pyramids. Use playdough, dirt, sticks, paper, etc. to make one or more of the shapes. Write about what you did.	**7.** Write down the years each person in your house was born. Order the numbers from least to greatest.	**8.** Draw a picture to show equal shares of fourths. Then, draw a picture to show equal shares of thirds.	**9.** What is the value of the number in the tens place in each number? 63, 783, 419, 578	**10.** A small pack of gums has 5 pieces. How many pieces of gum will I have if I bought 3 packs? 5 packs? 8 packs? Explain your thinking.
11. The movie starts at five minutes after 11. Write the time the movie starts. Draw a clock to show the correct time. Where is the minute hand?	**12.** Use a number line to record how you would count by 10's from 55 to 95. Remember your 1st number should be 55 not 0 or 1. Show your work	**13.** Write a story problem with 2 three-digit numbers. Now write a subtraction problem with 2 three-digit numbers	**14.** What math tool would be best for measuring the length of a: a. Book b. Car c. Shoe d. Height of a door	**15.** 2 groups of 2 = 2 groups of 3 = 2 groups of 4 = 2 groups of 5 = 2 groups of 6 = Continue up to 10. What strategy did you use?
16. Today's number is 74. Add 2 numbers to get the sum of 74. Subtract 2 numbers to get the difference of 74.	**17.** Use symbols (<, =, >) to compare the number sentences: 578 _____ 396 390 _____ 387 975 _____ 759	**18.** Next year our school will have six hundred thirty-nine students. Write the number in standard form and expanded form. Can you count by 10s from this number ending at 699?	**19.** My special machine adds 5 to each new number. What numbers come out of my machine if I put in a: 12? 19? 46? 87?	**20.** Write the number four hundred thirty-three. Skip count by 10s starting at this number to 493.

Recommended Math Reading List	
Author	**Title**
Adams, Barbara Johnston	The Go-Around Dollar
Axelrod, Amy	Pigs Will Be Pigs
Barabas, Kathy	Let's Find Out About Money
Baer, Edith	This Is The Way We Go To School
Burns, Marilyn	The Greedy Triangle
Burningham, John	Would You Rather?
Clement, Rod	Counting on Frank
Crampton, William G	Flag. Eyewitness Guides
Cribb, Joe Money	Eyewitness Guides
Cristaldi, Kathryn	Even Steven and Odd Todd
DeRubertis, Barbara	A Collection for Kate / Count on Pablo (Math Matters Series) Deena's Lucky Penny (Math Matters Series)
Emberley, Ed	Ed Emberley's Picture Pie: A Circle Drawing Book
Friedman, Aileen	A Cloak for the Dreamer / The King's Commissioners
Giganti, Paul Jr	How Many Snails?
Grossman, Bill	My Little Sister Ate One Hare

Hamm, Diane Johnson	How Many Feet in the Bed?
Harper, Dan	Telling Time with Big Mama Cat. Haskins, Jim. Count Your Way Through Japan
Hoban, Tana	26 Letters and 99 Cents / Shapes, Shapes, Shapes
Holtzman, Caren	A Quarter from the Tooth Fairy
Hong, Lily Toy	Two of Everything
Hulme, Joy N	Sea Sums
Hutchins, Pat	Clocks and More Clocks / The Doorbell Rang
Jenkins, Steve	Biggest, Strongest, Fastest
Jocelyn, Marthe	Hannah's Collection
Jonas, Ann	Splash
Jones, Carol	What's the Time, Mr. Wolf
Kaczman, James	When a Line Bends...A Shape Begins
Kassirer, Sue	What's Next, Nina? (Math Matters Series)
Keenan, Sheila	What Time Is It?
Leedy, Loreen	Fraction Action / Measuring Penny
Lionni, Leo	Inch by Inch
Llewellyn, Claire	My First Book of Time
Long, Lynette	Domino Addition
Mahy, Margaret	17 Kings and 42 Elephants

McMillan, Bruce	Eating Fractions
Merriam, Eve	12 Ways to Get to 11
Murphy, Stuart J	The Best Vacation Ever / Beep Beep, Vroom Vroom / A Fair Bear Share Let's Fly a Kite (Math Start Series) / Super Sand Castle Saturday / The Penny Pot Give Me Half! / Game Time!
Myller, Rolf	How Big Is a Foot?
Neuschwander, Cindy	Sir Cumference and the First Round Table.