Getting ready for Grade 7!

In Grade 6, instructional time in math focused on four critical areas:

Critical Area One

Apply previous experiences with multiplication, division, and fractions to develop understanding of rate and ratio as well as completing concepts concerning dividing fractions

Critical Area Two

Expand student's understanding of the number system with the introduction of negative integers

Critical Area Three

Introduce algebraic expressions and equations

Critical Area Four

Develop statistical thinking

Discover mathematics all around you this summer!!! Just as with reading, regular practice over the summer with problem solving, computation, and math facts will maintain and strengthen the mathematical gains you made over the school year.

Attached you will find creative mathematics activities to explore at home. The goal is for you to have fun thinking and working collaboratively to communicate mathematical ideas. While you are working, ask how the solution was found and why a particular strategy was chosen.

The Summer Math Learning Packet consists of 2 calendar pages, one for July and one for August. Literature and websites are also recommended to explore mathematics in new ways. We encourage you to complete at least 15 math days each month.

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?
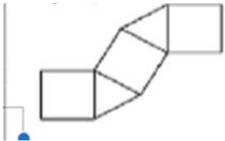How did you arrive at your answer?
Can you convince me that your solution makes sense? What did you try that didn't work?
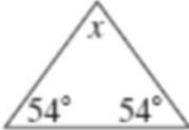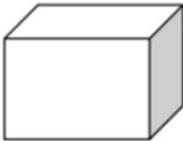
Responding...
Your response is as important as your initial question. Continue to discuss problems even after children have their answer. This will give your child a chance to clarify thinking and make more connections.

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	
			JULY 2018			
1.	2. In trail mix, the ratio of cups of peanuts to cups of chocolate candies is 3 to 2. How many cups of chocolate candies would be needed for 9 cups of peanuts?	3. A tank is 24 cm wide, and 30 cm long. It contains a stone and is filled with water to a height of 8 cm. When the stone is pulled out of the tank, the height of the water drops to 6 cm. Find the volume of the stone.	4. Mia walks her dog twice a day. Her evening walk is two and a half times as far as her morning walk. At the end of the week she says she walked her dog 30 miles. How long is her morning walk?	5. At Books Unlimited, 3 paperback books cost $18. What would 7 books cost? How many books could be purchased with $54?	6. List all the factors of 48. List all the factors of 64. What are the common factors of 48 and 64? What is the greatest common factor of 48 and 64?	7.
8.	9. The temperature is -28°F in Anchorage, Alaska and 65°F in Miami, Florida. How many degrees warmer is it in Miami than in Anchorage?	10. Write an expression to represent the situation. The skating rink charges $100 to reserve and then $5 per person. Write an expression to represent the cost for any number of people.	11. Seth wants to buy a new skateboard that costs $169. He has $88. If he earns $7.25 an hour pulling weeds, how many hours will he have to work to earn the rest of the money needed?	12. Alisa had 1/2 liter of juice in a bottle. She drank 3/8 liters of juice. What fraction of the juice in the bottle did Alisa drink?	13. What is the smallest number that is divisible by 1,2,3,4,5,6,7,8,9 and 10? How do you know?	14.
15.	16. If it took 7 hours to mow 4 lawns, then, at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?	17. The temperature in Alaska was 23 degrees below zero and in Maine was 14 degrees below zero. Ben wrote *Maine was colder because* -14 < -23. Is Ben correct? Explain your answer.	18. Will this net form a triangular prism?	19. What is the prime factorization of 32?	20. Lin rode her bike 150 minutes. If she rode at a constant speed, how far did she ride in 15 minutes? How long did it take her to ride 6 miles? How fast did she ride in miles per hour?	21.
22.	23. The average of six numbers is 4. A seventh is added and the new average is 5. Find the seventh number.	24. Are 3(3x − y) and 12(x-4y) equivalent expressions?	25. Bryan sells candy bars at 4 for 50¢. How many candy bars must Bryan sell in order to make $5.00?	26. If Terri swam 3 laps in 2.5 minutes, how long would it take her to swim 20 laps at the same rate?	27. Find the sum of the first ten prime numbers.	28

	JULY Monday	Tuesday	AUGUST Wednesday	Thursday	Friday	
	30. Given an expression such as 3x + 2y, find the value of the expression when x is equal to 4 and y is equal to 2.4.	July 31. What is a real life example of: 3/4 ÷ 1/2 =	Aug 1. What is the smallest three- digit number that is divisible by exactly three different prime numbers?	2. Express the fraction 7/20 and 3/5 as a decimal.	3. Play Sudoku from the newspaper or online. How did logic help you to solve the puzzle?	**4.**
5.	6. Amy has a fish tank that is a rectangular prism, 20 cm by 20 cm by 16 cm. What is the volume of the tank? If Amy only fills the tank 3/4 of the way, what will be the volume of the water in the tank?	7. What is the value of angle x?	8. A jacket costs $75.00. It is on sale for 30% off. If you give the cashier $60.00, calculate the amount of money she will return to you.	9. Denver's elevation is 5280 feet above sea level. Death Valley's is !282 feet. Is Death Valley located above or below sea level? Explain. How many feet higher is Denver than Death Valley?	10. Alex is painting 4 exterior walls of a rectangular barn. The length is 80 feet, width is 50 feet, and height is 30 feet. The paint costs $28 per gallon, and each gallon covers 420 sq. feet. How much will it cost? Explain.	**11.**
12.	13. 545 is halfway between 350 and what number?	14. If the area of a rectangle is 30cm² and the perimeter is 26 cm. What is its length and width?	15. If three pies require 2 dozen apples, then four pies require ___ dozen apples.	16. Find two numbers that have 2, 5, and 7 as factors.	17. The sum of two odd numbers is 28. The product of the two numbers is 115. What are the two numbers?	**18.**
19.	20. Find the area and perimeter of a triangle with dimensions of 8 cm, 14.4 cm, and 12 cm.	21. Place parentheses in the following equation to make it true. 6 + 6 ÷ 6 X 6 – 6 = 13	22. If a quadrilateral has three angles measuring, 60°, 45° and 100°, find the measure of the fourth angle.	23. Debbie has 42 marbles and Chris has 24 marbles. How many marbles should Debbie give to Chris so that they will have the same number of marbles?	24. If three pies require 2 dozen apples, then four pies require ___ dozen apples.	**25.**
26	27. Name this solid figure and find the number of faces, edges and vertices:	28. Name this solid figure and find the number of faces, edges and vertices:	29. Find the LCM (9, 15) = LCM (6, 18) =	30. Find the area and perimeter of a rectangle with length measuring 14 cm and width measuring 5 more than twice the length	31. Free Day!! Sept 4 is New Student Orientation and Sept 5 will be the first day of School!	

Book List

Title	Author
Evil Genius	Catherine Jinks
Forever Changes by	Brendan Halpin
Geek Abroad	Piper Banks
All of the Above	Shelley Pearsall
Hannah Divided	Adele Griffin
A Higher Geometry	Sharelle Byars
Guinness Book of Records	by Time Inc
Mathematicians are People Too	Luetta Reimer & Wilbert Reimer