



# MATH MATTERS!



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MS. KELLY POWERS, SUPERVISOR OF MATHEMATICS, 6-12

### GREETINGS PARENTS AND GUARDIANS!

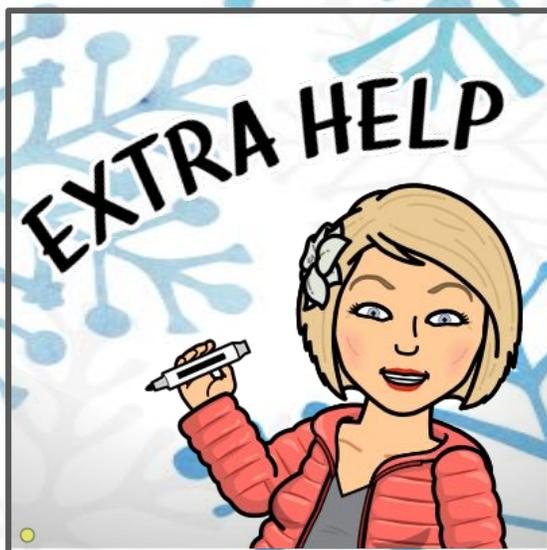
Throughout the 2020-2021 school year, we have faced immense challenges in education. We know that once we return to hybrid, then full in-person learning, we will need to take steps to regain all that has been lost, and maintain a growth mindset.

It is going to be extremely important to our scholars for you to be extra supportive- even more than you are now- to assist them in making gains.

How can you do that? In the next few pages, I will provide you with a few strategies that you can implement immediately, as well as provide you with a few websites where you can review the math and help your children to succeed! The last page is a fun math logic and puzzle page that you can work on with your children!

Enjoy!

~Ms. Kelly Powers, Supervisor of Mathematics, 6-12



### FREE MATH SITES TO HELP YOU HELP YOUR CHILDREN:

- [Soft Schools](#): Math Concepts, Tips, Games and Worksheets
- [Free Math Help](#)- Help with Algebra 1, Geometry, Calculus, Trigonometry and Statistics
- [Homeschool Math](#): free math worksheets, lessons, online math games lists, ebooks, a curriculum guide, reviews, and more
- [Khan Academy](#): Watch videos and practice skills
- [Delta Math](#): Practice skills and review step by step worked out examples.

**How** many times have you steered well clear of your children's math work because you either didn't know how to help them, or didn't know the math yourself? How can you help your children with their mathematical process at home, without knowing the math?

## ASK QUESTIONS!

Much of the development in mathematical thinking involves making sense of and working through problems, persevering through difficulties.

Below are a list of questions that you can ask your children on a regular basis to help reinforce mathematical thinking. The beauty of it, as you will see, is that you can utilize these questions in other aspects of life as well!

## READY... SET... ASK!!

	<u>Practice Standard</u>	<u>Questions to ask</u>
1	Make sense of problems and persevere in solving them.	What plan can you make to solve this problem? Can you draw a picture or act out the problem? What information is in the problem and what are you trying to figure out?
2	Reason abstractly and quantitatively	Can you explain what the numbers and/or variables in the problem represent? How did you decide to use this operation or strategy?
3	Construct viable arguments and critique the reasoning of others	How could you prove that.....? Tell me what your answer means. How can we be sure you are correct? Is this like another problem you have solved before? If I told you I think the answer should be (wrong answer), how would you explain to me why I am wrong?
4	Model with mathematics	What model could you construct that might help you solve this problem? Can you visualize the action in this problem? Do you know a formula or relationship that fits this problem situation?
5	Use appropriate tools strategically	What tools could we use to solve this problem? Which tool is more useful for this problem? Explain your choice.
6	Attend to precision	How do you know your solution is reasonable? Explain to me (a term from the lesson)... What do the symbols you used mean?
7	Look for and make use of structure	What do you notice when....? What patterns do you find in.....? What are some other problems that are similar to this one?
8	Look for and express regularity in repeated reasoning	Is this always true? What do you notice about...? What is happening in this situation? What pattern(s) do you see? Can you make a rule or generalization?

Click [HERE](#) to view the SMP PDF for Parents

## HOW YOU CAN HELP FOSTER A GROWTH MINDSET AT HOME?

**GROWTH  
MINDSET**



### 1. Pay attention.

Praise your child for their perseverance, persistence and hard work! If they learned a valuable lesson from a mistake, highlight it!

### 2. Be a growth mindset role model.

Encourage your child to finish any sentence that starts with “I can’t” with “yet”!

### 3. Encourage your child to forget taking the easy route.

Make sure that your child is able to embrace challenges!

### 4. Remember growth mindset isn’t just academic- it applies to many areas of life.

When your child is having difficulty mastering a skill in academics or in their personal lives, prompt and discuss the next steps for improvement.

### 5. Discourage envy of peers.

When your child expresses envy for the skills of another, ask them what they can learn from that person, and emphasize that with practice, persistence and hard work, they too can achieve those skills.

“Embracing a growth mindset isn’t always easy, but can have a huge impact on your child... and perhaps on you, too!”

To read this article from Oxford Learning, click [HERE](#).

# MATH PUZZLES

## FUN EXERCISES TO SHARPEN THE MIND...

### Sudoku Rules:

1. Only use the numbers 1 to 9
2. Avoid trying to guess the solution to the puzzle
3. Only use each number once in each row, column, & grid
4. Use the process of elimination as a tactic
5. Use cross-hatching and penciling in techniques.

Easy

Medium

Hard

	5	7	6	4			9	
3	9	8	7					
			8			5		2
8		4		7	6			
	6			2	5	7		
7	2					6	3	
	7		5		3		6	8
		3	4	6				1
6		1			8	3	5	

	7	4				3		
9	3							
				9		8		
4	1							2
2			3				4	
			7	2				
		6						1
	5		9				6	
7		8	6	1			5	

	2					9		8
3								2
			6		9	1		
2					6	5		
		7						1
				1				3
		3		5	8			7
1								
		4			3			8

### Logic Puzzle Rules:

1. In each puzzle you are given a series of categories, and an equal number of options within each category.
2. Each option is used once and only once.
3. Your goal is to figure out which options are linked together based on a series of given clues.
4. Each puzzle has only one unique solution, and each can be solved using simple logical processes

Porter is a "tiny home" enthusiast - he builds small, portable homes and sells them to others interested in the movement. Using only the clues below, determine the size and cost of each of his customer's tiny homes, as well as the city it will be delivered to.

	customers				prices			
	Gillespie	Ingram	Kirby	Pratt	\$25,000	\$32,250	\$35,000	\$36,000
sq footage	95 sq ft							
110 sq ft								
125 sq ft								
140 sq ft								
prices	\$25,000							
\$32,250								
\$35,000								
\$36,000								

### Active Clues

1. The 140 sq ft home sold for \$25,000.
2. The Kirby's house sold for \$35,000.
3. The \$32,250 structure is somewhat smaller than the \$36,000 home.
4. The \$35,000 structure is 15 sq ft larger than the Ingram's home.
5. The 110 sq ft structure is either the Pratt's structure or the \$35,000 home.
6. The Pratt's house is 15 sq ft larger than the \$35,000 home.

### ANSWERS



Print and give them a try!