NP Summer Math Packet - Incoming 5th Graders

We at _____would like to encourage students to explore mathematics in a global context in order to assist them in their journey to becoming enduring mathematicians and thinkers. Research states that daily at home engagement in math concepts, high expectations, and guardian involvement (including discussing mathematics) help promote lifelong independent thinkers.

This summer, _____students are to complete a minimum of **10** of the tasks on the Math Bingo board. We encourage you to challenge yourself by completing a straight row or diagonal, but if you need to jump around you may. When the tasks are complete, **we are asking a parent or guardian to sign off in the box to confirm completion**. **Please bring your signed Math Bingo board and completed evidence (writings, reflections, etc...) on the third day of school.**

DUE DATE	Third Day of School (date) with a Deadline of (date)
Student Task	Complete a **MINIMUM of 10** tasks on the board and record your evidence (to be used in connection with any square or reflections (to be used with videos or real-world mathematical websites).
Guardian Task	Check completion and sign off on EACH completed board space
Guardian Extended Opportunities	Engage in conversation regarding each board space your student completes.

We challenge families to promote a Growth Mindset in Mathematics at home.
Please support us by consistently sending the following key messages:

1) Everyone can learn math.
2) Mistakes are valuable.
3) Questions are really important.
4) Math is about creativity and making sense.
5) Math is about connections and communicating.
6) Math class is about learning.
7) Depth is more important than speed.

MATH-O (students who will be taking M6,M7,IM6,IM7 in the fall) **Name:**_____

M	A	T	H	O
Find a recipe. Prepare the food for one-half or one-third of what it calls for instead of the full serving amount. Rewrite the recipe for the new serving size.	Go to https://code.org/playlab and complete a playlab to create your own game.	Take a selfie of Math in Nature such as Fibonacci sequence or the golden ratio. Write how math is related to the item. If you're not sure, research online.	Watch the TedTalk:Richard Turere: My invention that made peace with lions Complete a reflection sheet.	Grab a partner and play "Race to 20" Starting at 1, take turns counting out-loud…You say the next number or numbers, then your partner goes. Winner is the player who says "20". Keep tally of 5 rounds. Reflect on the strategy you used to try and win.
Watch the TedTalk: AnnMarie Thomas: Hands-on science with squishy circuits and create your own circuit. Take a picture. Explain how you came up with your circuit	Grab a deck of cards and a partner. Take out the face cards and then split the deck in half. Each partner reveals one card at a time. Whoever can say the product of the two cards first gets to keep both cards. Try to get them all!	Watch the TedTalk: What adults can learn from kids. Write a reflection of your thoughts. Complete a reflection sheet.	Watch an episode of your favorite tv show. Use a stopwatch to track how much time is spent on commercials. Create a ratio of commercials to tv show. How many minutes of commercials would be in a two and a half hour movie?	Read ONE: Chasing Vermeer or The Wright 3 by Blue Valliet Do the Math: Secrets, Lies, Algebra by Wendy Lichtman Complete a reflection sheet.
Read ONE: The Phantom Tollbooth by Norton Juster The Toothpaste Millionaire by Jean Merrill Danny Dollar Millionaire Extraordinaire by Ty Allan Jackson. Complete a reflection sheet.	Go to https://studio.code.org/s/artist and finish the hour of code to create a piece of digital art.	Find a recipe for your favorite food. Find the cost for each item. How much would it cost to make the recipe for 24 people? What is the cost for one person?	What the TedTalk: How simple ideas lead to scientific discoveries. Complete a reflection sheet..	Think of a survey question (something where each person may or may not have the same true answer). Ask your question to at least 15 people and record your data. Use a bar graph to display your results.
Watch the TedTalk: Everyday Leadership. Write a reflection to include any lollipop moments you can remember. Then keep a journal for a week for each kind act you do for others that goes unnoticed.	Use a tape-measure to measure the arm-span (fingertips to fingertips) and height of five people. Create a ratio of arm span to height. Find the mean, median and mode of the arm spans and then the heights.	Go to http://www.nbclearn.com/portal/site/learn/resource and click on STEM. Watch any video. Complete a reflection sheet.	Keep track of how you spend your time in a whole day. Create a bar or circle graph to display your results.	Watch code.org's video: Computer Science is changing everything. Complete a reflection sheet.. What idea do you have that needs computer science? An app? A new technology? Art?
Use a pedometer to track your steps for one week and create a bar graph for each day.	Watch the TedEd: Can you solve the passcode riddle? Record your attempt at solving the riddle.	Read ONE: Sir Cumference Series by Cindy Neuschwander Complete a reflection sheet.	Create a picture collage which shows various shapes and math concepts in real life.	Watch the TedEd: How to visualize one in a million. Research and write two more examples of how to explain one in a million.

MATH BINGO