## Mandala School Newsletter

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Are you lost in space? Do your "x"s and " $y$ "s get confused? Fear not! Mandala mathematicians can help.

We use T -charts to find the answers (the unknowns) for the Number Machine. You put a number in and when it comes out it has been affected by the Number Machine process. Let's say you put a 1 in and 2 comes out; you put in a 2 and a 4 comes out. The process was timesing it by 2 .
The "in" number tells us to go either to negative x or positive x . The "out" number tells us to go either to negative y or positive y. We have reached our destination, a point on the graph.
In math using the coordinates Dr. John gave us, we were able to plot the points and connect them. After a while we were able to make a picture of a plane. It's interesting how you can make art using graph paper. By Nolan


#### Abstract

Running Club Final Meet \&e Award Ceremony What? Runners will participate in several events, receive awards, and enjoy some celebratory pizza! When? Tuesday, November 24th: Events begin at 3:30 P.M. Runners may stay afterschool for stretching/warm-ups beforehand. Where? Hamlin Park @ the track/ baseball diamond Who? All are welcome - come cheer on our runners!


Cost? Please send in $\$ 2 /$ child for pizza


Plastic Challenge: Starting on Monday, November 9th, we are challenging all families to go without single-use plastic for one whole week! We encourage you to invest in reusable lunch containers, water bottles, and bags! Student "plastic patrol" members will keep track of each child's plastic usage throughout the week. On Friday, we will decide which student(s) are best prepared for a plastic-free future! See Sarah's project on plastic bottles on page 2 !

Plastic Bottle Ban
By: Sarah
Single use plastic water bottles should be banned. One reason they should be banned is because a lot of plastic can not be recycled. $67.3 \%$ of plastic water bottles are sold in the United States. 70\% of those bottles are not recycled. When they are not recycled they end up in landfills or in the ocean harming the ecosystem and poisoning animals. Globally about 20,000 bottles are bought every second!

Another reason they should be banned is because it takes io-ıооо years for plastic to biodegrade. That means that every plastic that has ever been made still exists in one form or another.

Banning plastic water bottles can save money. Bottled water is expensive; it can cost 400-2,000 times more than tap water, four times more than a gallon of milk and three times more than a gallon of gasoline. U.S. cities spend \$ioo million dollars a year on plastic bottles. California, Oregon and Washington spend \$500 million a year removing waste from the Pacific coastline.


The school was sent a mysterious skull for analysis. It had a sagittal crest on the top of it, which prompted Dr. Devin, PhD to find that it was a California sea lion skull, which had been bitten by a shark from underneath. All of the markings matched perfectly with a photo of a complete sea lion skull! Even the length matched. By: Juan

## Student of the Week: Finn



Finn is a nine year old veteran at Mandala. He is an adventurous, creative, bugcatching, hilarious kid! Finn enjoys catching toads, making leaf piles, and playing video games. If he could pick anywhere to live it would be Costa Rica because of all the jungle creatures that live there. His favorite food is chocolate cake. Finn sometimes makes his own cake and even bakes bread, cookies, and brownies completely on his own! He is an experienced hiker and a yellow belt in karate. Summer is his favorite season because he has the best chance of catching praying mantis! Here's to Finn!


Graham \& Sachin researching the Elf Owl


In art class this week we made masks! I made mine with papiermâché and painted it blue and green. I also put plants in a tiny tray on the bottom of my mask. Kate.M made hers out of a recycled food tray and used hot glue to make it look like the sky was raining on the green painted bottom of her mask. Kate.C made hers out of a tiny cardboard tray. She made it so dirt went around her eyes and mouth. She has beads lining her mouth too.
Devin and Juan made their mask with clay. Art class was super fun this week! By: Ria

What's a logarithm? By Ria \& Kate M.
A logarithm has to do with adding exponents to multiply. The problem Dr. John gave us was $3 \times 5$ but using powers of 2 .

We had to find an exponent with 2 to make it equal 3 . We found that 2 to the power of 1.5849625 was real close. The other two students had to find an exponent with 2 that made 5. They found that 2 to the power of 2.32198 got them close. When we added 1.5849625 plus 2.32198 it equalled 3.9069425 . So, 2 to the power of $3.9069425=$ 15.0005 . Pretty close!

Logarithms don't use a base of 2 . They use a base of 10 or e. What is "e"?


Left: Sachin built a nest at Hamlin park out of natural materials
Right: Kindergarten students collect data in math class to answer the question, "what is the most popular color of car?"


