



Science Fair

On Monday at 8:45 we got into the car and left for the Science Fair. We made a left onto Jewett Holmwood and then onto 277 South. Then we arrived at Boston Valley Elementary School. The Fredonia College Students were in the classroom. We saw Amanda, Nicole, Melanie, Allison, Kayleigh, Amy, Melissa, Angelina, Casey, Caitlyn, Sarah F, Sarah S, Jessica E, Jessica M, and Stephen. We blew bubbles with Nicole and Amanda at the first station. We counted M&Ms at the second station with Melanie. Then we did the ruler catch with Allison at the third station. We did the hydrogen peroxide with Kayleigh and Stephen at the fourth station. We did the food coloring at the fifth station with Amy and Melissa. Then we did the milk experiment at the sixth station with Casey and Angelina. Then we did the confetti experiment at the seventh station with Sarah and Jessica. Finally we went outside and played Oh, Deer. Then we went back to school and ate lunch. As you can see, that is why I liked the Fredonia College Students.

Colin Fee

Fredonia Intern Trip

What do dry ice and M&M's have in common? Silly question, I know.

Well on Monday, we went to Boston Valley Elementary to have a little science fair and a mathematical diagnostic with some of Dr. John's Fredonia college students. It was my first experience doing this. I know other students here have done it before but I thought this little adventure was super amazing. Everyone was super nice and all the science projects I saw were so cool.

I have two favorite projects from that day: one was the dry ice experiment and the other one was making your own lava lamp using a water bottle, oil, water, and food coloring for a cool color.

At any other school you wouldn't be able to experience such a fun and amazing activity. Even the mathematical diagnostic was fun. Everyone got one or two college students asking mathematical questions seeing what you know and even helping the college students with teaching.

At Mandala School you never know what crazy and fun adventure is next!

Elizabeth D'Andrea





Carry on, Mr. Bowditch is a non-fiction story of a boy who was indentured at a store called Ropes and Hodges when he was twelve. He was very good at math. He wanted to go to Harvard University but after he was indentured he was too old to go there. His first job was being first mate on a ship. He taught many sailors how to work lunars without a full moon.

Next he was second mate. He was married and while he was on a voyage his wife died. In a famous book called Moore, he found many errors. A lot of ships sank and a lot of people died all because of that book so he decided to make his own book. In between one of his voyages he fell in love with his first wife's cousin and married her. On his last voyage he was captain. There was many storms and the last one brought so much fog that they had to sail by book. Almost all the people in Salem, his home town, didn't believe in sailing by book. That is why it was so amazing when he got home after three days of fog.

Carry on Mr. Bowditch is a great book and I think you should read it. Dr. John read it to us.

Jordan Horn

What is Nanowrimo?

Nanowrimo: NAtionalNOvelWRIttingMOnth

Every November we Mandalians take on the challenge of writing a novel. The major purpose is to WRITE A LOT! This builds fluency.

Sebastian continues to work on the novel he began last year! He has written 14,385 words.



Colin starting his third novel.



Rainbow darters

Cazenovia Creek Critters

We went to Cedric's house and went down a path to Caz Creek. We used a seine net. Two people hold the ends and one person walks in the front and turns over rocks.

We got fish, darters, bugs, and crayfish. We had a lot of fun.

Lizzy Parker

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I found a beetle on the back of my dog's head. I thought it was a ladybug but then I took a closer look and its back was gold. I went on the computer and did some research and I found that it was a *calligrapha* leaf beetle.

I thought that the coolest thing about the *calligrapha* leaf beetle was its legs. It has little hairs on them that can stick on anything. Its back is so cool because it has black dots and black lines on its back. That's my bug.

Will Styka



Testing Acidity of Pop

The pH scale is used to measure the strength of bases or acids. Neutral is 7.0, 1.0 is very acidic and 14.0 is very basic.

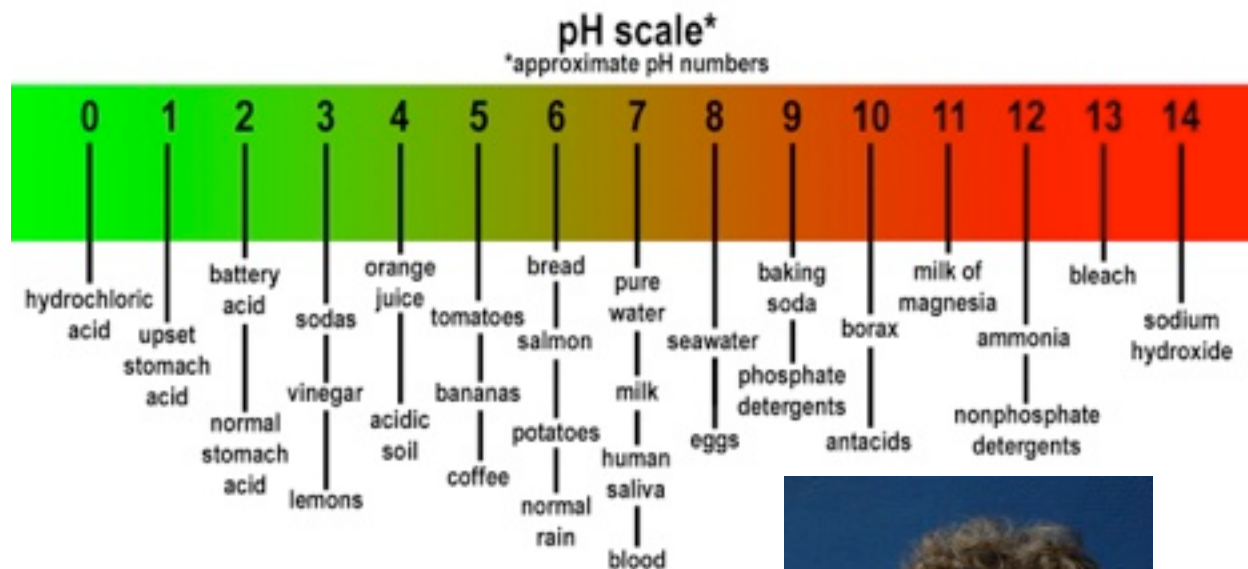
A 1-point change really means a change of 10 times. (It's a logarithmic scale.) So going from 7 to 6 means 10 times more acidic than neutral. 7 to 5, being two steps, is 100 times more acidic than neutral.

We tested Orange Crush, Pepsi, and Mountain Dew. These are the results are in the table to the right.

That means Orange Crush and Mountain Dew are 10,000 times more acidic than water. Pepsi is 39,810 times as acidic!!

Soda Pop	pH
Orange Crush	3.0
Pepsi	2.4
Mountain Dew	3.0

Research conducted by Elizabeth, Lizzy, Jordan, and Dr. John.



*Twinkie mummies for Halloween.
Thank you , Elizabeth!*



What happens if you eat too many Twinkie mummies.

How hard can Rocket Science be anyway?

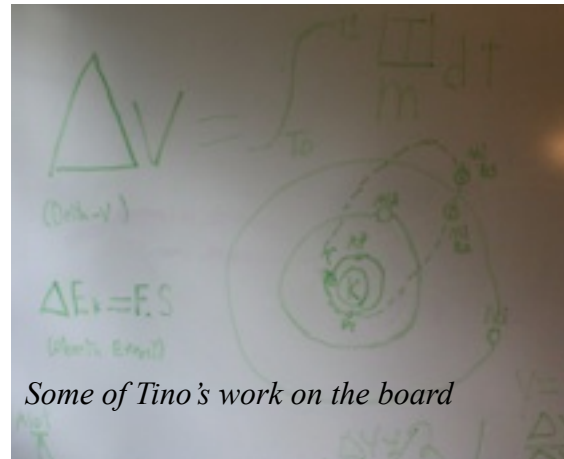
This is what my friends and I asked when we first discovered an amazing game/simulator: The Kerbal Space Program. Now at first glance it may seem as though this program is nothing but a silly video game, but once you try it out you begin to realize how much depth and realism is really programmed into the game.

Even the simplest of achievements in game: Landing on the Mun (the Mun is the analog for our Moon) can take at least a few hours of trial and error to successfully land. The game closely relates to *real* Rocket Science and can require knowledge of things like ΔV (pronounced “delta V”) which is a change in velocity and certain effects such as the *Oberth Effect*.

Velocity is speed and direction, NOT just speed. Acceleration is ANY change in velocity. For example, same speed but a change in direction is a change in acceleration.

From the game some have actually learned quite bit from it and has sparked interests in Rocket Science and space in general. Overall the game has proven to be an entertaining and informative game/simulation, from designing, building, and flying your rockets to “landing” and crashing them. We challenge ourselves to design to best space-craft we can as well as learn as much as we can from the experience.

*Fly Safely,
Levantino Piccini*



Rocket Science & Math
The advanced math group has begun learning the mathematics for a typical high school physics class.

We have discussed velocity, speed, acceleration, mass, force, and inertia. They practiced the method of finding average velocity using:

$$\frac{X - X_0}{t - t_0}$$

The numerator is used to find the displacement from the original to the final location and the denominator finds the elapsed time.

Next steps involve determining the escape velocity necessary to launch a rocket and how speed relates to height of orbit and the pull of gravity.

