



Mandala School Newsletter

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The primary students have begun their first unit: a study of Mexico! They learned some Spanish, geography, animals, and more. We learned that tin is one of the exports of Mexico and so we created Hojalata (tin art). Hazel made the crested caracara (a native Mexican bird), some made fish, and others chose their own design.

Bienvenido a Mexico! 🇲🇷

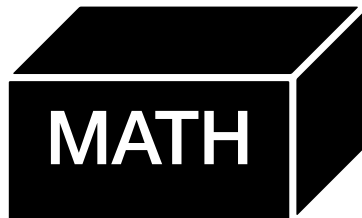
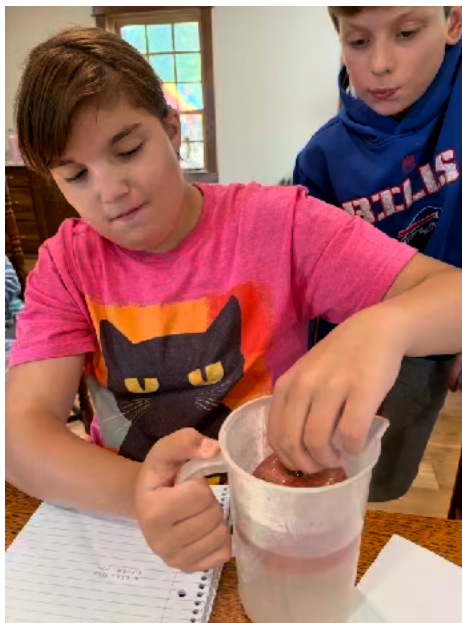


Above: painting Hojalata (tin art)
Right: First day of art self-portraits
Far right: Painting during a collaborative art project

Our math class was given the problem *How big is your apple?* We measured the height and the width. That was easy. Then we wanted to measure how much space it took up; that's called volume. We used water displacement for some things.

To measure the volume of a box, we first built little boxes out of cubes. We discovered that if you multiply the length times the width times the height, that tells you how many cubes would fill the space. We used that to find the volume of the tabletop, $63,840 \text{ cm}^3$.

By Owen, Jasper, Amelia, Sophie, & Dana



**countdown to
Camp Allegany:
24 days**

Using Water Displacement to Measure Volume

To measure solid objects, put it in water with measurements on the side of the container then see how much the water goes up.

The water was at 600 ml when the apple went in, the water went up to 950 ml. $950 - 600 = 350$ so the apple has a volume of 350 ml (milliliters).

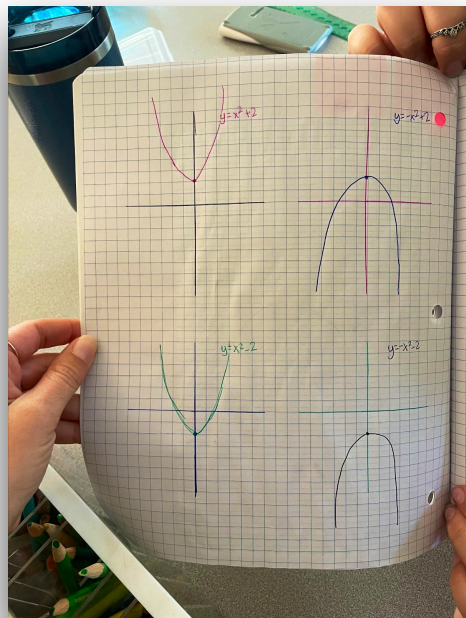
By Dana

To measure lung capacity we first marked off a gallon jug every 500 ml. Then we filled it with water and flipped it over into water. We stuck a tube up it and blew out all our air. The water exploded out of the jug and the air from our lungs was now in the jug.

The jug held 4000 ml of water and I blew out 2000 ml.
Dr. John blew out the most: 4000 ml!

By Sophie





This week in math we have been working on graphing linear and quadratic equations. We did it on paper and using Desmos graphing calculator on the computer.

A linear equation is a straight line. It has a steady slope which is the steepness of the line. A linear equation follows the formula $y=mx+b$ where b is the y-intercept and m is the slope.

A quadratic equation makes a parabola which looks like a “U” shape. Quadratic equations follow the formula $y=ax^2+bx+c$. They always have an exponent.

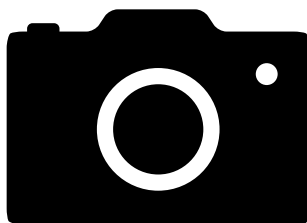
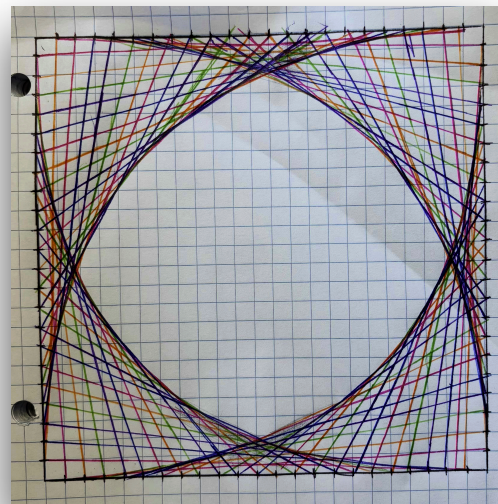
Then we figured out how you can flip a parabola so it faces downward. You simply place a negative in front of the “a” value.

The vertex is the maximum or minimum of the parabola, depending on which way it opens. The y-

intercept is where the parabola crosses the y-axis.

When you multiple two binomials together you get a quadratic equation. If you set the original binomials to zero and solve for the variable you can find where the parabola will cross the x-axis.

- Bryce & Brooklyn



Picture Day:
Wednesday 9/17
forms were sent home today!

In science we learned about Newtonian and non-Newtonian fluids along with viscosity of different fluids. Viscosity is how sticky or thick a substance is. For example, tar has very high viscosity and water has low viscosity. A Newtonian fluid is something that no matter how fast you stir it, it won't change in viscosity. With a non-Newtonian fluid if you apply pressure it will change in viscosity. Oobleck is a non-Newtonian fluid. At rest it flows like a liquid, but when you squeeze or punch it, it acts like a solid. -Written by Weston

Oobleck recipe: 2 parts cornstarch: 1 part cold water

