## Mandala School Newsletter Volume XIII Issue XII <br> December 11, 2020



Sachin \& Katie peeling the bananas for banana bread


The middle group baked peanut butter cookies with Hershey's Kisses on top! Everyone was in charge of one step, but we all helped to roll the dough into little balls and dip them in sugar. They were a big hit!
Juan and Jackson decided to use the leftover dough for an experimental creation - the chocolate lava cookie. They've decided a baking show is in their future.


Attention Readers: Start your search for a new book! We will have our next book report due on January 26th, 2021. Please show a teacher your selection BEFORE we leave for our solstice break, next Friday 12/18. Happy hunting!

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Kate is kind, funny, and always a good friend to all. Kate is 12 years old and lives with just her mom. If Kate could go anywhere in the world it would be Bora Bora. Kate's dream job is to be an actress. Kate's favorite animals are cats and dogs because she can't decide which she likes more. Kate has never been anywhere outside of the United States. Her favorite movie is the Muppet movie and her favorite book is George.

If Kate could travel to any time in the past it would be the 1980s because she likes hearing about her mom's childhood and wants to do it. It also just sounds cool. and if she could go forward in time she would go to 2028. If she could go anywhere in space it would be Venus. Her best friend in the whole world is her friend Maddy.

Interview by Jackson


When we got some snow on Wednesday all of the kids were enjoying the sleds at recess!


Binomials, quadratics, \& Parabolas
By Kate M., Juan, \& Ria
This week in math we learned about multiplying binomials. (A binomial has two terms or parts. In $(x+4)$ there is the " $x$ " and the " 4 ".) The first step is setting up the binomials in multiplication form to get something that looks similar to this:

* $(\mathrm{x}+2)$

Then, after that you multiply the terms $(x+4)$ time $(x+2)$, you will get an equation for a parabola which in this case would be: $\quad x^{2}+6 x+8=y$


Whenever you see $x^{2}$ that automatically means you get a parabola. The numbers that you see when multiplying the binomials are the $\mathbf{x}$ intercepts with the signs flipped $(-+)$. So $(x+4)$ means one $x$ intercept is -4 and $(x+2)$ means the other $x$ intercept is -2 .

The +8 on the end means that the $\mathbf{y}$ intercept will be at +8 on the graph.


The line of symmetry splits the parabola in half and goes through the vertex. To find the line of symmetry, take half of the middle term and reverse the sign. So in the equation $x^{2}+6 x$ $+8=y$, take half of 6 and make it negative: -3. The line of symmetry is at $x=-3$, the blue line is the line of symmetry going through the parabola (red line).

