



CTL CORNER

Center for Teaching & Learning | 10431 Hufsmith Rd., Tomball, TX 77375 | 832-474-8214



Important Dates

Nov. 18 - Thanksgiving Feast

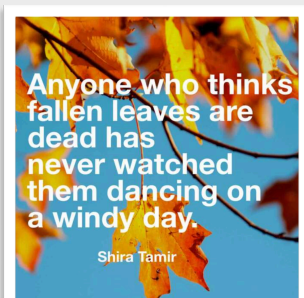
Nov. 18 - Early release 12PM

Nov. 18-19 - Student-led Conferences

Nov. 22-26 - Thanksgiving break

Important Reminders

- * School begins at 7:55 a.m.
- * Tennis shoes PE days M&W.
- * Water bottle every day.
- * Mosquito spray if needed.



A Message from the Head of School

I grew up singing at school each day the great, traditional, patriotic songs that set in motion my deep appreciation and love for this great country we live in and for those who have served and continue to serve to protect our freedoms. I was touched Thursday morning as I listened to our CTL students sing those songs at our Veteran's Day celebration. I am thankful for Mrs. Sebree for being our music teacher, for teaching our children these songs and for coordinating the amazing program, and I am thankful for our children for their part in making the celebration special through words and song. We are blessed to live in this great country! We must never forget that!



We have much to be thankful for! We are already celebrating the end of Trimester 1 this week with our first trimester student-led conferences—the culmination of much learning, reflection, collaboration, goal setting and fun. I am thankful for our amazing teachers and Mrs. Maia who are devoted to be present every day for our students—prepared, confident, patient, and enthusiastic. It is a joy to come to school each day and work alongside such professionals. It is also a joy to work with our amazing students. I am thankful to you, the parents, who support us all. To celebrate this trimester, students have





Vision

We are dedicated to igniting and growing a love of learning in every child.

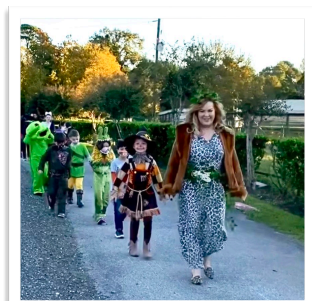
Mission Statement

The Center for Teaching and Learning's primary mission is to foster a love of learning by teaching students to follow their curiosity, to think creatively, and to work both independently and collaboratively. We celebrate diversity and instill integrity, compassion, and confidence in each student. We work in tandem with parents, families, and community members to ensure that each child



been working hard to assess their learning and put together their portfolios in preparation for their student-led conferences where they will share with you. This exciting culminating process reminds them of what they have learned and the fun they have had along the way, and it gives them an opportunity to look forward to learning for the next trimester. We look forward to seeing you at the conferences on Thursday and Friday.

It was wonderful to have our entire CTL family together again complete with parents, grandparents, siblings and friend on October 29 for our Halloween Carnival. What fun the students had! We are excited to see you again at the Thanksgiving Feast on Thursday, another opportunity to join together as a CTL family. Thanks to all who have volunteered to contribute to this important celebration.



I know that as you peruse this newsletter, you will be in awe of the wonderful learning opportunities your children are afforded by our amazing team of teachers. I am always happy to be the final reader before it goes out for publication, and I love it. I have an opportunity to stop by the classrooms daily, but the blurbs written by the teachers here review the entire trimester and make me so proud to be a part of this network of professionals. You will see their commitment in every word. They love your children!

At this time of year and all year long, we have much to be thankful for. Let us celebrate those things during this Thanksgiving season. Have a great time with your family and friends!

Linda Ellis

Pre-K Class

Happy Fall to everyone! We have had an awesome start to the school year. The children have been busy learning new, exciting lessons and making new friends. During the reading and writing workshop, we are discussing parts of a book and how the author and illustrator are sometimes



different people and how they must work together to make the book become alive. Also, the front cover design can give you clues to what the book is about. Some of our favorite books are *Room on a Broom*, *Scarecrow Boy*, *Pumpkin Hill*, *The Very Busy Spider*, and *Buster Bat*. After reading *Room on the Broom*, the students made brooms and put the characters in order. Some of the students made their own version of the *Room on the Broom* book.

This month in science we began by talking about the life cycle of a spider, why spiders are not insects, and the difference between the two. In our bat unit, we explored how bats are helpful to our environment by eating lots of mosquitos for dinner each night which seem to be in abundance this fall. Our dancing apple seed science experiment began with apple seeds, water, lemon juice, and baking soda. The lemon juice and baking soda reaction will create bubbles that push the apple seeds up and down like they are dancing.

Math has never been so much fun as our popcorn counting and matching (and eating) number activity. Pre-K decided to get spooky with their spider and bat math. This was a wonderful way to strengthen their number sense. By placing a numbered group of spiders/bats on their corresponding web or bats in the cave, this helps them to demonstrate number quantity knowledge.

It was nice to be able to continue our tradition of our annual fall festival and storybook parade. Everyone looked fantastic dressed in their favorite Halloween costumes. A big shout out to our room mom, Colleen Yee, for her contribution to the Fall festival.

In November, we are looking forward to portfolio presentations and Thanksgiving activities.

Beckey Billings

K-2 Class

We had so much fun welcoming fall in the month of October with many hands-on activities to celebrate the season and Halloween as well. Our Halloween carnival was a huge success and fun was had by all.

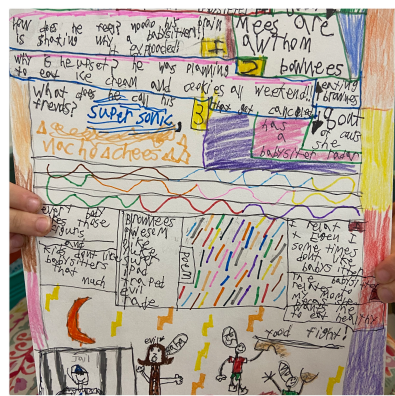


Reading workshop continues to grow our readers every day as they read independently and conference with me to see how they are doing with reading just right books. I encourage them to remember to change out their book bags as they finish with the books they read at home. This helps keep them on track with their at-home reading and allows for the books to be returned for other students to read as well. Keep up the reading at home! Many of the students are already climbing up the book levels. We will continue this next month.

During writing workshop the students continue to write personal narratives and even some fiction stories. They are learning about the various strategies to use in their writing through our mini lessons and our conferences. They also participated in interactive writing as I modeled proper spelling, punctuation and spacing in writing. All of the students continue to share writing pieces in our Author's Chair.

In social studies the class learned about the various types of maps and how they are used. They used a compass rose to practice cardinal directions and created a map key. They were presented with the challenge of making a three-dimensional model of our classroom and shared their masterpieces with the class. They were displayed in the front hallway for other CTL students to see. Native American life and adaptation to areas of the United States was also introduced and will be continued through the month of November.

Math workshop is plugging along as we continue to use our math strategies to figure out more math problems. The students are continuing to work on place value. We learned about fact families and how to solve problems using strip diagrams, number lines, skip counting, and base ten blocks. We continue to play a variety of math games to reinforce the math the children are learning. I have seen such growth in the mental math and continue to encourage kids to be risk takers and learn new ways to think about math. We all learn from each other, make mistakes, revise, and strengthen skills along the way. Our pumpkin explorations included math and science as we weighed, measured, carved out and counted all the seeds from our own pumpkins. What an enriching experience it



was. We even made no-bake pumpkin cookies! All helped to measure ingredients. In November we will begin graphing, working with doubles/near doubles, graphing, and introducing, recognizing, and counting money.

In science we explored the various habitats and the living things within each, both plants and animals. We discussed how animals adapt to their environment, compared similarities and differences between each, and looked at the diversity of living things. The class completed an M&M experiment as well to see what happens when you place them in water. We watched a Mystery Science video which revealed who invented candy and how much of it is made. Next month we will switch our focus to changes in our earth, quick and slow changes to land.

November will be a short month with the upcoming Thanksgiving break. We will continue to build our skills throughout the curriculum. The class will be hard at work preparing for their student-led portfolio conferences. This takes a great deal of time and patience as the kids work on self-reflection, evaluation, selection, and presentation of their learning at CTL. We look forward to our fall portfolio presentations. I am sure you will be impressed with your student's work.

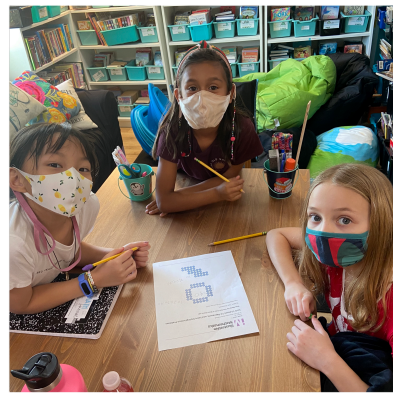
I am looking forward to seeing you all at our Thanksgiving feast as well!

Lisa Lipar

3-4 Class

Third and fourth graders are amazing learners! We enjoy discovering new things each day. As we move through the first trimester, we continued to explore new topics in each subject area.

In reading workshop students are charting their reading progress and documenting books they have completed. We have so many avid readers! Students are encouraged to think about the story elements as they read. This includes the setting, characters, problem, and solution of the story. We will begin to discuss character traits within their selected texts and explore how this adds to the plot.



This goes hand-in-hand with writing workshop. Students have been immersed in fiction and personal narrative writing. They have enjoyed going into a memory and exploding the moment. As portfolio assessment time gets closer, we will be analyzing our writing to select pieces to showcase in student portfolios. During this process students will also edit and revise some writing for publication. They selected one piece to type and publish on the computer.

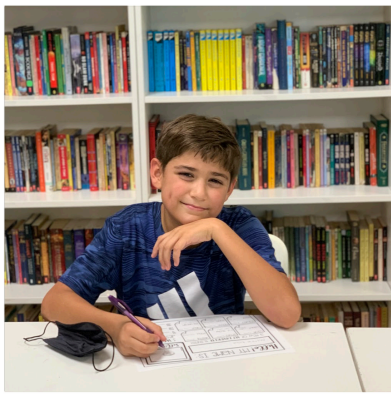
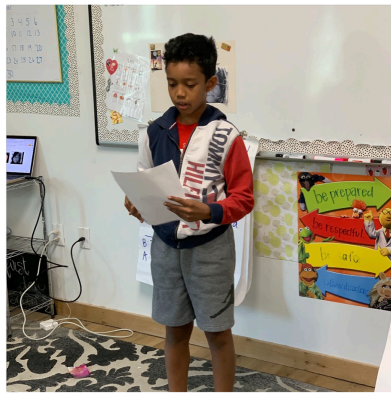
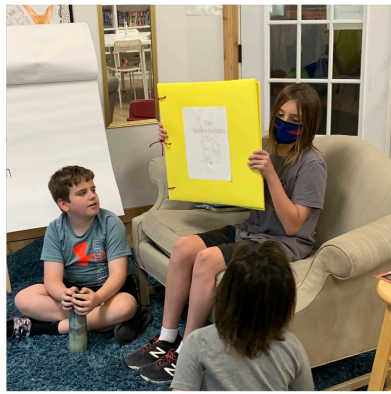
In math workshop students will continue learning and understanding multiplication and division. We explore these math concepts in many ways. They utilize math skills to solve real-world problems and share different ways to come to the same answer. They also practice specific multiplication facts through math partner games created for each multiplication fact. We will continue to discover how, like addition and subtraction, multiplication and division work together with related facts. This concept opens up the knowledge that if you know one fact you can use it to solve other facts. Our mathematicians have fun learning more about the connections in math and numbers.

In science workshop we moved into a new topic studying natural resources. Within this unit we will explore renewable and nonrenewable resources. We will complete each topic through project- based learning and student group presentations.

During social studies workshop our focus has been on early English settlements. They enjoyed learning about the European explorers and analyzed their routes. Students once again became the experts and enjoyed sharing their own explorer with the class on the paper plate project.

I am amazed daily at the brilliance and uniqueness of each student. As always, thank you for sharing your child with me each day!

Melanie Welsh



5-9 Reading-Writing Workshop

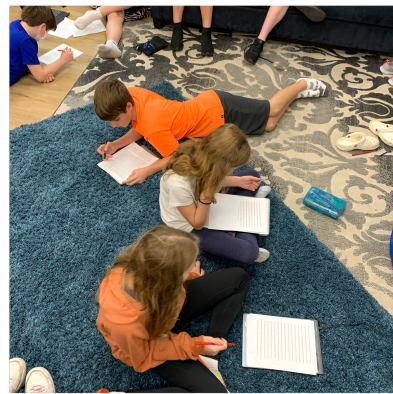
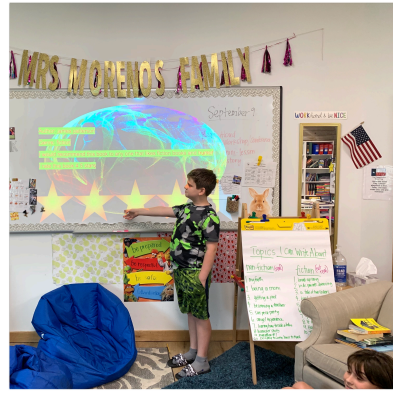
What a wonderful first trimester we had! To recap, in Grades 5-6 we finished our first class read aloud book of the year, *The Unteachables*, a hilarious novel from beloved and bestselling author Gordon Korman about what happens when the worst class of kids in school is paired with the worst teacher. The students loved the highly entertaining story, and we enjoyed the wonderful discussion about learning how a classroom becomes a family.

We have since begun our second class read aloud book, *Wonder* by R.J. Palacio, a modern classic about an ordinary kid with an extraordinary face. If you've ever been the new kid, you know how hard that can be. Students remained highly engaged with the story enjoying discussions about confidence and self worth. This book is certainly providing us with tons to talk about and mull over.

In grades 7-9 reading workshop, we completed our first class read aloud, *Took: A Ghost Story* by Mary Downing Hahn, a mysterious tale about siblings from Connecticut who relocate to the country in West Virginia. Students loved making inferences of what would happen next throughout the plot. Class discussions about writing techniques and character development kept everyone engaged.

After completing the read aloud, *Took: A Ghost Story*, the 7-9 class began Lois Duncan's highly suspenseful novel, *Don't Look Behind You*. A fast paced novel about a high school girl whose family must disappear into the Federal Witness Security Program to save their lives. The students have loved each chapter, always wanting to read more than time allows.

As a culmination to the daily independent reading of their choice books, all reading workshop students presented their first round of book projects. I was delighted by the quality and variety of the presentations given by everyone. We had everything from board games to animations. As well as practicing their presentation skills, book projects also help to foster a classroom full of young people who just love reading books and sharing them



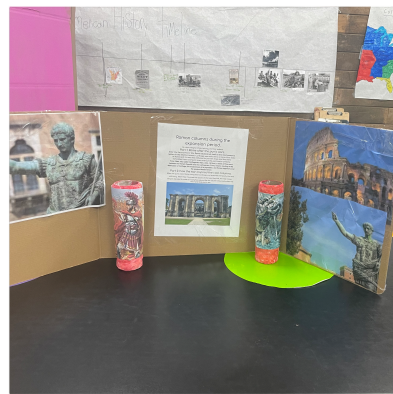
with their friends. I noticed several students already picking up books their friends had recommended in their book projects.

In the writing workshop, students completed their first round of writing, and we all enjoyed our first Publishing Day together. The writing process is invaluable to get us to this day. Students write daily from choice topics and experience the benefits of sharing with their peers, receiving lots of positive feedback. Prior to publishing day, they choose a favorite piece and make revisions, proofreading and editing each day. After sharing their initial writings and revisions with their peers and providing feedback to everyone's stories, and after conferencing one-on-one with me along the way, their pieces are finally ready. Publishing Day is always an exciting time of the trimester, and the students truly enjoy the opportunity to share their writing with others in a meaningful way.

Kristy Moreno

5-8 Social Studies Workshop

In grades 5-6 we learned all the ways that Rome has influenced our modern world with its art, architecture, technology, and innovation in comparison to modern times. The kingdom of Rome was so large at its height that the fall was almost inevitable. We learned about the many reasons why it fell with discussions and research culminating in the students' creation of podcasts that they shared with each other at a round table discussion. After the fall of Rome in retrospect, we jumped into learning about medieval Europe and the countries within including their most important aspects such as the Roman Catholic Church and feudalism and how these affect the societies as a whole. Students role-played a feudalistic society and afterwards graded the system on the strengths and weaknesses. After portfolio creation, student-led conferences, and Thanksgiving break they will begin researching a country in Europe out of the seventy-three or so in existence at the time so they can experience their similarities and differences to end our unit on medieval Europe.



In grades 7-8 we spent time at the beginning of October reviewing the American Revolution by creating a timeline of events from 1763-1792. This period was full of events and happenings that were significant for our country and its formation. We also looked closely at what was happening west of the American Revolution on the North American continent. This is often something that is overlooked but did have some repercussions on the outcome of the revolution itself. Students then created a news show where anchors traveled back in time to interview and discuss topics from around the North American continent including the Revolution itself. The news show was edited, and students wrote their monthly blog as a famous scientist or historian. After sharing the final news show production with the whole group, students created a writing piece on the effect things west of the Revolution had on the creation of our country. This actually led to a discussion of the role European countries played in the Revolution as well, and in small groups students found information on how each of five countries in Europe supported the patriots during the Revolution whether secretly or overtly. Students put the information learned into a news article, video, poster, or podcast that they shared with the rest of the class. We discussed the Articles of Confederation and role-played running the class with the type of laws that governed our nation at the time and why we had to create the Constitution. Our last week saw students go to law school and analyze the Constitution to understand exactly what it contains. As good citizens of the United States, this is imperative to know and understand. After Thanksgiving we will review our knowledge of the Constitution and apply that to the real world with small role-playing skits. Finally, to end the unit on the Constitution, we will have a Law School graduation ceremony!

Amy Kiddy

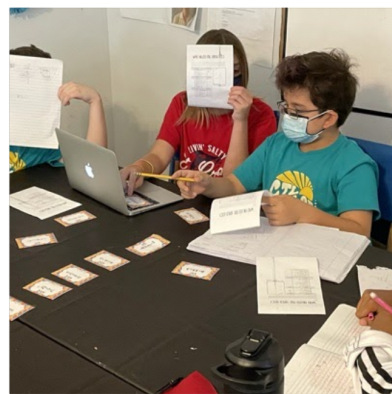
5-8 Science Workshop

We have been busy creating and exploring in 5-6th grade science. October saw our class learning about regional classification systems or biomes and binomial nomenclature of the animals within those biomes. Through videos, mini-lessons, and research, students learned how biomes are dependent upon climate, temperature, humidity, and many other factors that affect the animals within its boundaries. They also learned that animals are dependent on each other for their



energy sources or food. The students each picked a specific biome to focus on and created a diorama food web showing the interdependence of the animals while also representing the specific biome their animal lived in and where these were found in the world. These were really fun and came out looking amazing. The students' creativity and excitement really shined. Next they focused on two carnivorous animals from their biome and by learning about their bodies, agility, speed, strength, and fighting style imagined what would happen if they met each other in the wild. To learn more about the specific animals in their food web, they presented this to their classmates in a game of "Who would win?" At the end of October we dove into open and closed ecosystems, the smaller parts of biomes that are specific to species. We began working on an experiment by creating a closed ecosystem in a water bottle to mimic earth and an open ecosystem in an aquarium. All ecosystems have a thermometer and humidity gauge, and we will monitor their stability over the next few weeks. November also will see us go into our portfolio workshops and prepare for the student led conferences right before our Thanksgiving break. When we return, we will report on our open and closed systems and begin our exploration of the biogeochemical cycles that govern our closed ecosystem on earth.

In October, Grades 7-8 science moved into learning about the insides of cells by learning about their organelles that help them function. The students created a giant, room-sized cell that we pretended was real and discovered by explorers in the Arctic. It was shipped here to CTL Laboratories to be reassembled and put on display in a museum exhibit hosted by the students. Each student chose an organelle to research and learn about and explored their function within the cell. They then created a slide for a slide show and a giant model of the organelle itself. Once we had all of the parts made, we assembled the giant model and set up the exhibit which also included videos, voice recordings, games, and a cytoplasm center to help visitors (the rest of the school) learn about cells. Students were the docents for the exhibit, walking visitors around and explaining all they had learned. It was fun and exciting to share our learning with the entire school. After that, in October student's worked on their blog which each of them write every month. They have written some fun and interesting things as pretend scientists and historians. After our blogs, the students completed a comic strip about cells to reinforce their learning and complete the unit learning about the function of



cells within our bodies and how they would be different in each part of the body. We also learned how cells join together to make up tissues, tissues join together to make up organs, and organs join together to make up body systems that are necessary for our bodies to function. These systems were looked at closely in stations with fun activities to get students thinking about how our body's systems actually work. We will go into portfolio workshop and Thanksgiving and upon our return will explore sense organs, dissections, and the interconnectedness of our body's systems.

Amy Kiddy

5-6 Math Workshop

WOW! WE HAVE BEEN BUSY! In October, the 5th & 6th graders wrapped up the **Numbers Foundation Unit 1** with the **distributive property** and **order of operations**. Students learned how to apply the distributive property to rewrite numbers, for multi-digit multiplication and to simplify algebraic expressions. The order of operations was introduced and expanded to include exponents which we learned about in September when we rewrote prime factorizations with exponents. We used the **PEMDAS** acronym to help remember the order in which operations must be completed in problems with multiple operations. We practiced simplifying numeric expressions with a friendly but competitive game of Order of Operations Candyland then moved on to comparing Integer War. This was an introduction of positive and negative numbers to all of the 5th graders. About half of the students volunteered for a challenging game of Order of Operations Clue that involved integers. Students had to use their deductive reasoning skills to solve "who done it?"

We then began the **Rational Numbers Unit 2** where we are focusing on interpreting different forms of rational numbers (**fractions, decimals, percentages**) and learning when each form is most appropriate for a given problem. The first investigation we examined involved comparing fundraisers for 6th grade, 7th grade, 8th grade, and teachers. Each fundraiser had a different goal amount and their progress was measured on a "thermometer"-type bar scale. We explored how to find fractional amounts of the



We are The Champions

Green	3	9	21
Yellow	3	9	21
Blue	2	6	14
Red	2	6	14
Total	10	30	70

Handwritten calculations on the right:

$$\begin{array}{r} 3 \\ \times 7 \\ \hline 21 \end{array}$$

$$\begin{array}{r} 3 \\ \times 7 \\ \hline 21 \end{array}$$


fundraiser's progress by creating fraction strips from folding strips of paper into equal parts. Students had great discussions about how to fold the paper strips to create halves, thirds, fourths, fifths, sixths, eighths, tenths and twelfths fraction strips. **Equivalent fractions** naturally evolved from these discussions as we put these fractions on number lines and compared distances between fractions less than 1. Students strengthened their ability to find equivalent fractions by using Equivalent Fraction Cards during any free time. We also used these student-made fraction strips in later parts of the investigation as they began to compare quantities using ratios and finding equivalent ratios using multiplicative patterns. We compared the final money amounts raised by each fundraiser by writing comparison statements using ratios.

In the next investigation, we used snap cubes to follow a scenario about different colored marbles and students were comparing blue to yellow (**part to part**) and then blue to all the colors (**part to whole**). This led to a discussion of what would happen if we were working with fractions or something else. Students defined a fraction and decided that since we were using part to part, it couldn't be a fraction. I then introduced the term, **ratio**, and explained that these are the two different types of ratios, and the three ways to represent them—as a fraction, with a colon, and the word “to.” After this discussion, students were assigned into random groups to the wipe boards where I drew a table (like the one below) and only provided them with the word “total” and numbers “30” and “70” in the total row. The students had to problem solve and communicate with each other on how to fill in the rest of the **Equivalent Ratio Table**. I was very impressed that everyone was able to fill in the table within seven minutes!

On Halloween students visited **Mrs. Schellhaas's Magical Candy Shoppe**. Each table had candy scattered around, and students organized the candy and found the total amount in each bag. Shoppe A's candy prices had only natural numbers, whereas Shoppe B's candy prices had decimals. Students then had to find the price for one individual piece of candy which is known as **unit rate**.

In November students continued to explore how to find unit rates with models using Play-doh. Students used the Play-doh as a multi-sectioned gummy worm and had to

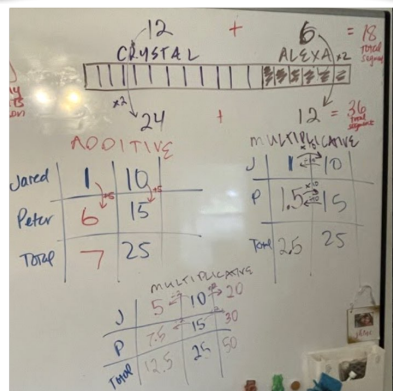
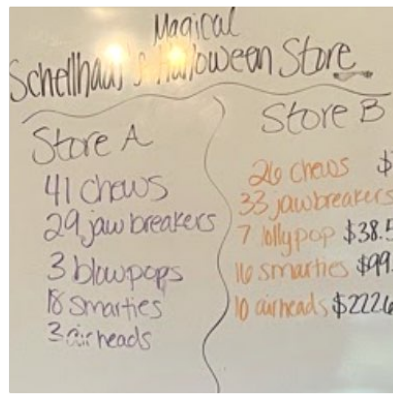
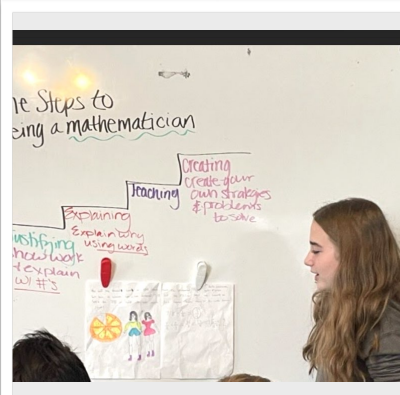
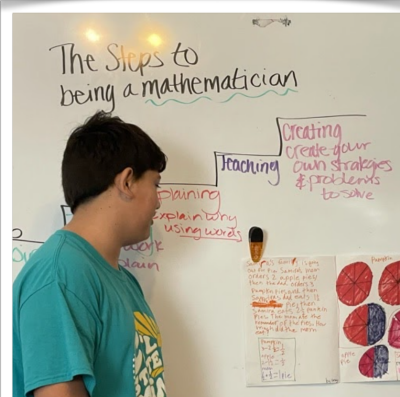


figure out how to slice it in order to equally share the pieces among a certain number of people. The following day students were asked if there were any instances where sharing unequally would be fair. They all agreed that there were times but could not think of an example. I asked students to think into the future when they will be moving into an apartment with a roommate. There is one really nice-sized room with the attached bath and walk-in closet, and then there's a smaller room with a small closet and the bathroom is across the hall. Who should pay more? Most of the class agreed that the person with the bigger room should pay. Some students had no preference, but then again, isn't that sharing unequally? They have more room, but you are both paying the same amount. Continuing with the gummy worm scenario, students organized their information into two tables and came up with a rule for each one—one additive rule and one multiplicative rule. Students then had to explore which one works and why. We then concluded this week by having students compare, order, and place rational numbers and integers on a number line made with paper towels! In December, we will wrap up this unit by exploring the conversion between fractions, decimals, and percents. When we come back from the Christmas break, we will start the Proportional Reasoning Unit.

We concluded the first trimester with self-evaluations as we reflected on all we had accomplished this first third of the year. Students diligently prepared their work during portfolio workshop and practiced for their student-led conferences. This was a new experience for both myself and some of our students who are new at CTL. I learned a lot about them, and I know they learned a lot about themselves through this reflective learning process which is a unique opportunity provided at CTL. We are all learning and growing together and have had a great start to the second trimester. Please make sure your student replenishes his/her supplies as needed.

Please feel free to reach out to me with any questions or concerns via Remind Direct Message (Remind App - Class code @5-6mathctl) or by email.

Makaila Schellhaas

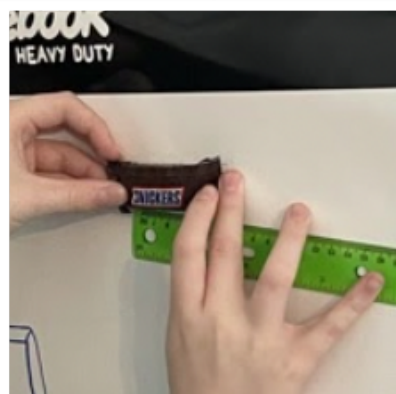
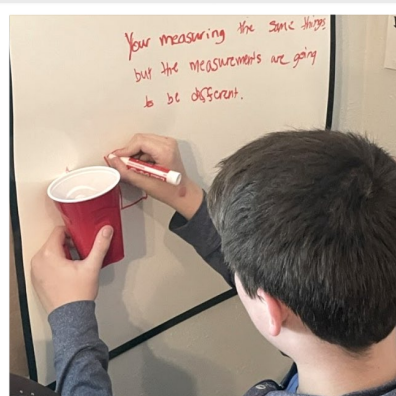
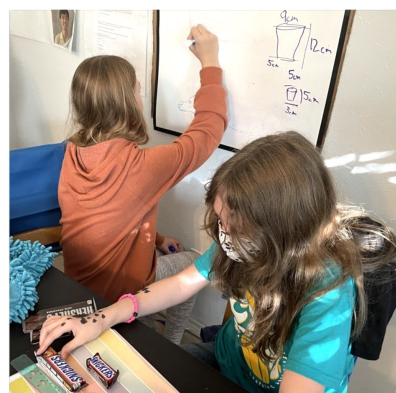


7-8 Math Workshop

WOW! WE HAVE BEEN BUSY! In October, the 7th & 8th graders wrapped up the Numbers Foundation Unit 1 with multiplying and dividing fractions, the distributive property, and order of operations. Students used Play-doh to explore the reasoning of producing a smaller answer when you multiply with fractions. Students discovered that when you multiply by a fraction with a value less than one, you are receiving a fractional piece of the original whole or the original fraction. Naturally, students started questioning what happens with division. Why does the answer produced get bigger? Again, students used Play-doh to provide a visual representation for their thought process. When students divided a fraction by a fraction with a value less than one, students discovered that they were making more pieces within the original fraction, thus producing an answer that represented more pieces (a bigger answer). Utilizing their new-found knowledge, students chose a recipe to scale the measured ingredients for the whole school and then for an assigned grade level. While this was challenging, the reward was delicious! To demonstrate their mastery of their understanding of fraction operations, students created their own original fraction word problem, some were even multi-step. Students drafted their problem, solved it mathematically, and then drew models for the visual representation. Gray and Della were brave enough to walk us through their problems.



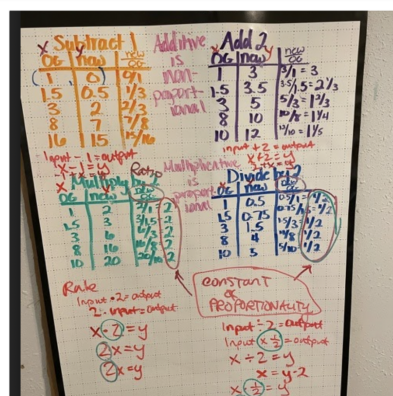
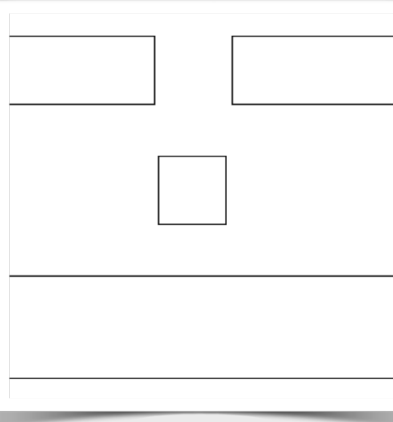
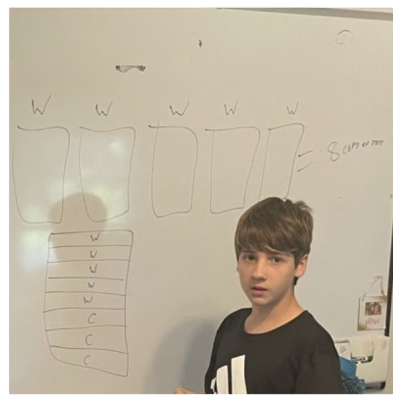
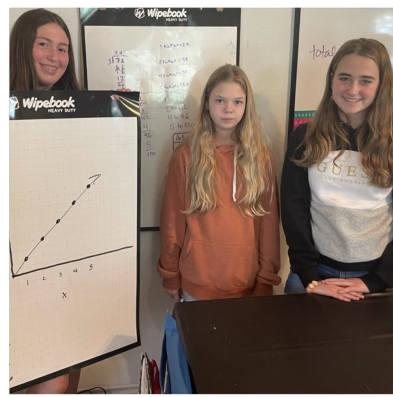
In mid-October, Students learned how to apply the distributive property to rewrite numbers for multi-digit multiplication and to simplify algebraic expressions and then combine like terms. Students defined terms as numbers with the same variable(s) attached, or just a number by itself. The order of operations was introduced and expanded to include exponents which we reviewed in September. We used the PEMDAS acronym to help remember the order in which operations must be completed in problems with multiple operations. We practiced simplifying numeric expressions with rational



numbers, with a challenging game of Order of Operations Clue that involved integers. Students had to use their deductive reasoning skills to solve “who done it?” To conclude the end of Unit 1, students participated in a circuit that hosted all of the skills learned in the Numbers Foundation Unit 1—rational number and integer operations, distributive property, and combining like term, exponents, and absolute value.

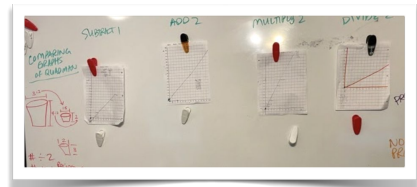
In the introduction to the Proportional Reasoning Unit 2, students were given a red solo cup and a mini red solo cup and were asked if these two items were proportional. Mrs. Petrovic and I did not introduce the term “proportional” beforehand. We gave the examples of model cars being proportional to the life size version. Students struggled on what to do next without any sort of instruction. Slowly, students found a ruler and started measuring the diameter of rims, the bottoms of the cups, and the heights. They then had to question which side of the ruler to use- inches or centimeters? Using the most precise measurements allowed students to discover that the cups are not proportional. Mrs. Petrovic and I then handed out Hershey and mini-Hershey candy bars and Snickers and mini-Snickers bars. Are they proportional? Students were quick to find the measurements in centimeters and determined that the Hershey bars were proportional, but the Snickers were not. So what does proportional mean? Students needed to communicate what they had learned. After much discussion, someone came up with “proportional means that all measurements in one object grow at the same rate.”

The next investigation had students inquiring about the correct ratio to mix orange juice concentrate and water. We used clear cups and food coloring to model the 4 mixtures, and then students needed to determine how to find equivalent ratios for the four mixtures given the total number of servings needed. A common question was, “How do I scale my ratio when the total servings is not a multiple?” Among student discourse they quickly realized it would be easier to find the ratio for 1 cup, also known as unit rate, and then scale it to the total number of servings needed. One strategy that students, like Brandon, used was to draw a model of the cups to determine how much water and concentrate was needed in 1 cup. Continuing, with our lesson of unit rates,



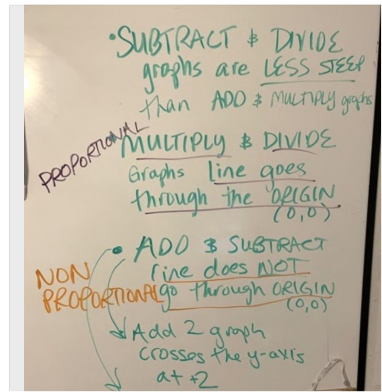
students were given a scenario of Parker and Tatum going to a concert and with a ticket price. Students needed to find and organize the price for 1, 3, 4, and 5 tickets, then graph that information.

The following week, students continued their exploration of proportional relationships with Quad-Man. Partnered up randomly, students measured Quad-Man's features and then scaled them down to draw him on graph paper. Once the original face was graphed, students had to alter and redraw the face with these changes—add 2, multiply by 2, divide by 2, and subtract. Students now had a total of 4 faces on their graph paper. What would be the best way to organize and compare the new data to the old data? TABLES! Students created 4 tables, one to go with each new face. Each table had a column for the original measurements, the new measurements, and the new over original measurements. How else can this information be displayed? With a graph! Students then constructed graphs for each table and they were posted on the board. Students were asked what similarities and differences there were between the tables and graph and compared the tables to the other tables and the graphs to the other graphs.



Students discovered that the multiplicative operations went through the origin, and a pattern in the new over original column, and were proportional. Thus the additive operations did not go through the origin, did not have a pattern in the new over original column, and were not proportional.

Moving into the next investigation and needing to become more comfortable with input and output tables, students created their own one step rule and produced a complete table on an index card. Students traded cards and had to figure out what rule their peers manufactured. The following day, the ante was increased, and the students were now instructed to follow the same rules as the day prior but create a two-step rule. The students wrestled with finding the rule. I wrote 3 tables on the board, and we discussed strategies to make finding the rule easier. Strategy 1—start with the smaller numbers, the ones you feel more comfortable working with and try



to find a pattern with those. Strategy 2—rule out coefficients and constants with process of elimination.

Our goal is to conclude this unit by the end of December. In our next investigation we will be working with percent proportions and measurement conversions. When we come back from Christmas break, we will start the Geometry and Measurement Unit 3.

We concluded the first trimester with self-evaluations as we reflected on all we had accomplished this first third of the year. Students diligently worked to prepare their work during portfolio workshop and practiced for their student-led conferences. This was a new experience for both myself and some of our students who are new at CTL. I learned a lot about them, and I know they learned a lot about themselves through this reflective learning process which is a unique opportunity provided at CTL. We are all learning and growing together and have had a great start to the second trimester. Please make sure your students replenish their supplies as needed.

Please feel free to reach out to me with any questions or concerns via Remind Direct Message (Remind App - Class code @7-8mathctl) or by email.

Makaila Schellhaas

PreK—8 Art

This month in Pre-K art we worked on a sunset silhouette landscape and continued practicing our tracing with a festive turkey.



In K-2 art this month we painted pumpkins and worked on tape pictures. The students are very excited to remove their tape and see the final product!

This month in 3-4 art we learned about the different sides of the brain and how they operate. We worked on an unpaid down drawing exercise to help the students focus on just the lines and not the end result.

This month in 5-8 art we continued working on the human



face and proportions. We also completed our pop art portraits. Focusing on the styles of Lichtenstein and other Pop Art artists.

Rachel Parks

PreK-8 Music

The CTL music classes have been working hard so far this school year. The students in all grades have been learning a wide variety of music and have been learning about different instruments. All students have also been working hard on preparing songs for our Veterans Day performance to be presented to CTL students and parents.

Coming in December the 3-4 students will be presenting a musical called *The Elf Impersonator* which they have already been working very hard on. Students in all other grades will present music during this performance as well.

Students in grades 5-8 will begin learning to play the Ukulele beginning after Christmas break. All students are asked to provide their own ukulele to practice and perform with. You will find a link to purchase a ukulele in the next *Wednesday Bulletin*.

Students in grades 3-4 will begin learning to play the recorder after Christmas break. We will provide a link to purchase the recorders for these students in the next *Wednesday Bulletin*.

I am enjoying working with your children at CTL. We have a lot of talented students, and it has been fun exploring music with them all. We have some fun, exciting things coming in the future, and the students are learning melody, harmony, rhythm, reading music, and numerous other concepts while preparing music for others to enjoy as well.

Catherine Sebree

PreK-8 Physical Education

In Pre-K we have continued to love moving our bodies during PE time! They really know the routine now so we have had a lot of fun doing our warm-ups together—stretching, working



on our new soccer skills, and then cooling down with some music and movement.

The soccer skills we have worked on have been dribbling around cones, trapping the ball, and kicking into the net. They have loved getting to work on this unit and it is so fun to hear them cheer each other on.

In PE for K-2 we completed the volleyball unit by working on serving over the net and continuing our partner passing. I saw several students really improve since the beginning when first introduced to volleyball. By the end nearly every single one had served it at least once over the net! Very impressive!

We then transitioned to our soccer unit and have been working on partner passing, dribbling and timed sprinting. This group loves the timed sprint competition!

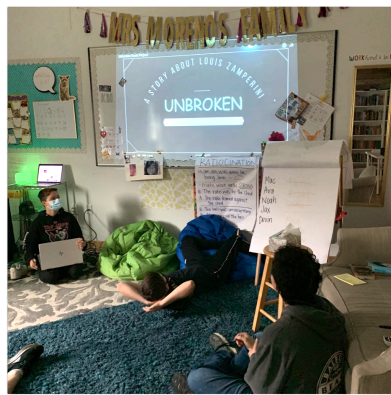
Grades 3-4 completed the volleyball unit by participating in matches (6 on 6). They learned scoring, serving, and strategies and improved their passing skills by doing partner work. They seemed to really enjoy the game, and I think it's definitely something they will be excited to revisit later in the year.

We have since started a soccer unit. We have been working on passing, dribbling and doing timed sprints. The classes all seem to love soccer, so we will continue this unit for a while and will hopefully get to have some scrimmages soon.

In PE 5-8 we ended our volleyball unit by competing in matches (6 on 6). We learned the rules of the game, scoring, and serving and continued improving on passing skills with partners.

We then began a new unit with everyone's favorite sport...soccer! To start out we have been working on passing with the inside of the foot and dribbling and have ended each class with timed sprints (hoping to improve our times each try). We will continue this unit by learning more about the game (rules, strategies, etc) and will hopefully get to scrimmage soon.

Andrea Seider



5-11 Drama

In Drama we have continued to build confidence in speaking and presenting in front of an audience. We have also worked more on creating scenes with small groups and sharpening our improvisational skills through community games and warm-ups. We came together as a group to vote on a play and have since been reading through the script to gauge favorite characters and decide which roles sound like a good fit. After a few run throughs, parts are being decided soon and we should finally be ready to begin rehearsing and preparing to perform.

Andrea Seider

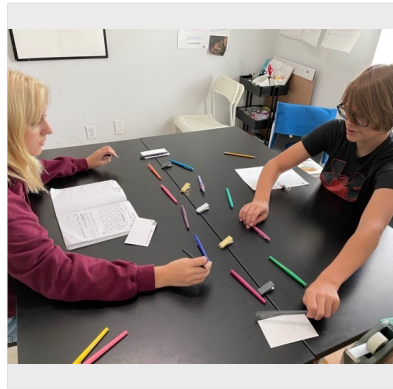
CTL High

English I & II/Creative Writing & Dual Credit English

In Grade 9 & 10 English 1 and 2, we had a brilliant first trimester. We finished our first read aloud book, the triumphant biography *Unbroken* by Laura Hillenbrand. The biography opened up interesting conversations about life, character, integrity, and willpower. The deep discussions of the will to survive and the power of forgiveness will surely be remembered by all. It has been hailed as some of the students' favorite book of all time. We completed our first round of book projects, and I was impressed with the quality and variety of the presentations given by everyone. The students always go above and beyond my expectations.



In grades 10-11 writing, we have continued our exploration of rhetoric, analysis, argument, academic research, and information synthesis. Students have been deep in analyzing visual rhetoric (including analysis of advertisements, art, pop culture references, etc.), producing thesis statements for their upcoming research projects.

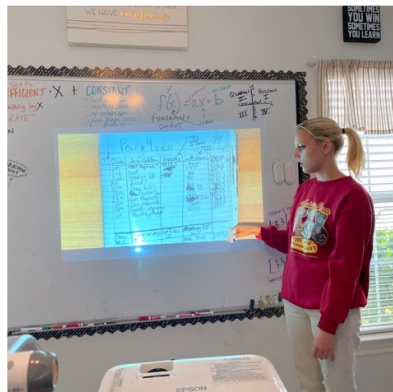


I am always so excited to see them transfer their literary knowledge from discussions we have been having around the rug during read aloud time to their own books and pieces we read together. It's a true honor being able to see them grow as critical thinkers and readers, and I am delighted to see our students enthusiastic about engaging with these ideas.

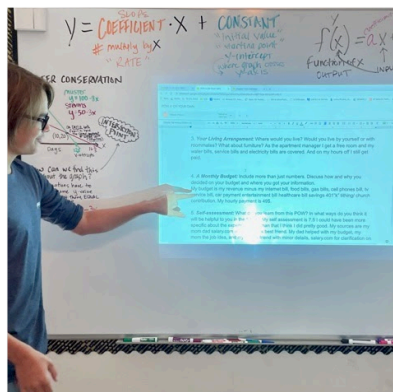
I am extremely proud to call myself their English teacher and feel lucky to be working with such a group of talented and creative young people.

Kristy Moreno

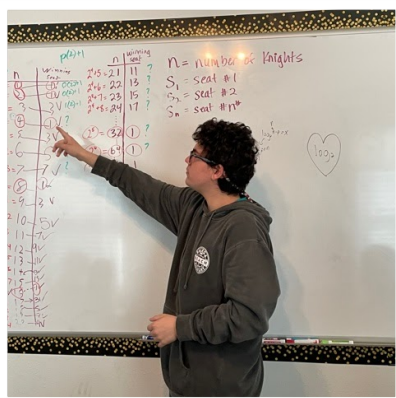
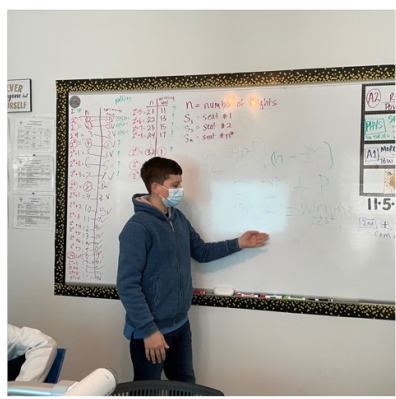
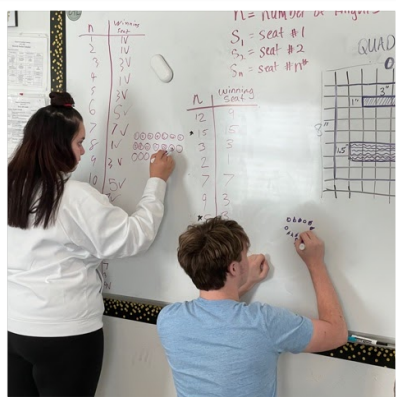
Grade 9 Algebra I



In October, the Algebra I students continued to develop their understanding of linear relationships within the context of the westward expansion of settlers in the 1800s. They transitioned from linear rules and tables to graphs using the scenarios of dwindling supplies of water, coffee, and food supplies compared to days of travel remaining or elapsed since the settlers left their last location. Students learned how to set up and scale axes on graphs appropriately by creating graphs by hand and considering the context and information needed from the graph. As they explored these various contexts through graphs, they discovered the general form of linear equations and how the equations are related to the scenario and graphs. With this understanding of the connection between the four multiple representations of linear relationships, they were able to create their own scenarios and make a poster that matched the scenario to a table with a rule and graph. Systems of linear equations were investigated as students compared multiple families' journeys to see who would have enough supplies and reach certain milestones based on initial amounts and consumption rates. By comparing their graphs created by hand to graphs created by a graphing calculator, students learned how to use this calculator as a tool to verify solutions to systems of linear equations by finding the intersection point of the two lines.



Students also completed and presented on two additional Problems of Week, one involving the pattern of ships traveling from NYC to San Francisco around Cape Horn and



one involving creating a monthly budget based on finding a job and living on their own after high school with no parental support. These problems challenge students to collaborate and communicate their mathematical thinking to problem solve and find an outside the box solution. In the Around the Horn POW, students decided to make a physical model to view the movement of the ships to find a pattern and solution.

In November, we will dive into CTL's reflective learning process known as Portfolio Workshop. Students will complete self-evaluations in the form of a cover letter for the Algebra I section of their portfolio where they provide an overview of their learning and work from this first trimester, describe their personal growth and reflect and set goals for the next trimester. The students work diligently to organize their work and present to their parents during a Student Led Conference at the end of the trimester. It is a very busy and productive last two weeks of the trimester as we head into Thanksgiving break.

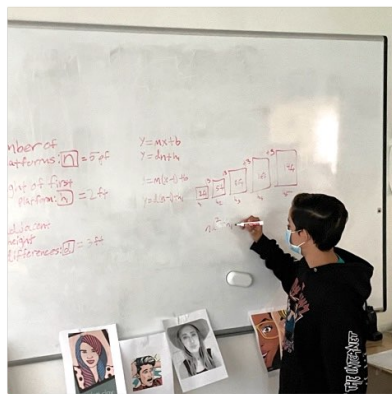
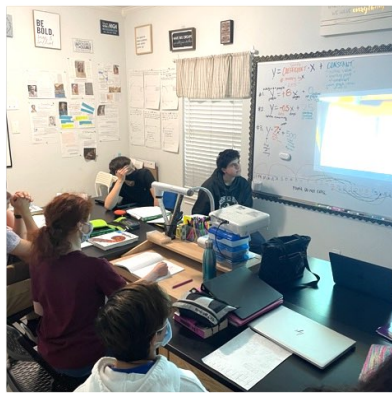
When we return, we will wrap up The Overland Trail unit by connecting the graphical solutions with algebraic solutions derived from manipulating variables within linear equations and making meaningful sense of these solutions using the migration scenarios.

Rachelle Petrovic

Grades 10 & 11 Algebra II

In October, we applied some Physics concepts such as free-fall motion in our Algebra II activities to determine speeds, distances, and times for fallen objects to reach the ground or an impact point. By focusing on the speed at a particular time during these free-fall motions on a distance versus time graph, students were able to see how to calculate the instantaneous speed at a given point using slope calculations between two points. Then they were able to generalize this process to calculate the instantaneous rate of change, or derivative, at a point for any non-linear graph of function using the slope of tangent lines.

They returned to the unit problem of modeling growth by predicting prices for a dozen eggs in 2100 and tracking the



growth of an amoeba population and determined that exponential functions model growth of these types more accurately than linear models. By exploring one of the Algebra I unit metaphors of Alice in Wonderland eating cake to grow or shrink exponentially, we reviewed logarithms, \log_{base} , as solutions to solving for the exponent in exponential equations.

Algebra II students completed and presented on two challenging Problems of the Week in October. Their second POW challenged students to create a formula to calculate dimensions of a set of performance platforms without knowing three main variables. This challenge allowed students to see the need for arithmetic sequences to write a condensed version of a repeating pattern formula. The entire class collaborated on the third POW to create a general formula that could be used to determine the winning seat of a game at King Arthur's Round Table for any given number of knights in attendance. Students worked together to organize data and results into a table, verify values and discuss patterns that eventually led to a general formula involving powers of 2, logarithms and the greatest integer function. These topics evolved naturally as students continued to search for this formula and were able to apply and combine these concepts to come up with a solution for this POW. It was great to see all of them work together as a team to support, explain, and challenge one another throughout this process. They showed great persistence, collaboration, and mathematical problem solving skills!

In November, we will dive into CTL's reflective learning process to wrap up the first trimester of the 2021-22 school year. It is hard to believe we are already one-third of the way through this school year! When we return from Thanksgiving break, we will begin the second trimester with expanding knowledge of logarithms to develop the concept of the value e and the natural logarithm, \ln , using compound interest and additional population growth scenarios.

Rachelle Petrovic

Biology I & II

In Biology I & II we reviewed cells and their organelles and functions then focused our learning on the plasma membrane



and its composition of phospholipids and how things enter and exit the cell through active or inactive transport. Next, they helped the 7-8 grade class create the giant cell model and exhibit by working on the plasma membrane and certain exhibit stations and parts. Their best feature of the model by far was the tunnel-like ion channel and cross section replica of the membrane phospholipid bilayer and cell division in clay. They participated in the exhibit itself and shared their knowledge and enthusiasm for cells with the entire school. They all worked really hard on creating such a fun project.

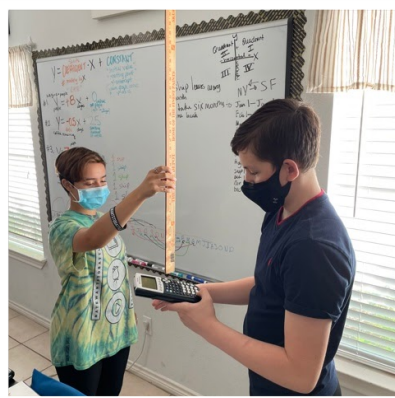
Next, they jumped into cellular division and interphase and what each of those stages looks like and does for the cell. Last week saw them have some Halloween fun by exploring the life cycle and life span in time of specific cells including stem cells within the body to ponder the notion of zombies in real life. How long would each cell type live before it needs to be reproduced? How do the cells and systems interactions affect the individual cells? How does this relate to immortality? They also discovered and read about nature's real life zombie insects that are created from fungi infecting their hosts. The most fun is still going on which is an experiment with ants and oleic acid. We will see exactly what happens if we put oleic acid on ants and compare pure oleic acid to olive oil which has 85% oleic acid compounds in its makeup. Do we make zombie ants or not? To be announced later... Then onto portfolio workshop, student-led conferences and Thanksgiving break.

When we return we will learn about cyclins that control cell cycles, cancer and its treatments, and genetics and mutations.

Amy Kiddy

United States History

In US History, we learned about the influences great philosophers, thinkers, and writers, and even Native American tribes had on our American ideals of equality, individual rights, liberty, opportunity, and democracy and important governing documents like the Declaration of Independence and the Constitution by researching people like Jean Jacques Russo, Voltaire, the Magna Carta, the Iroquois Nation, and many others and their writing and



documents. We compared and contrasted these important and often famous ideas and put what we learned onto a poster to share with each other. Overall, many of our American ideals and documents were an amalgamation of the smartest ideas and minds of the time brought together to create the perfect union and form of government.

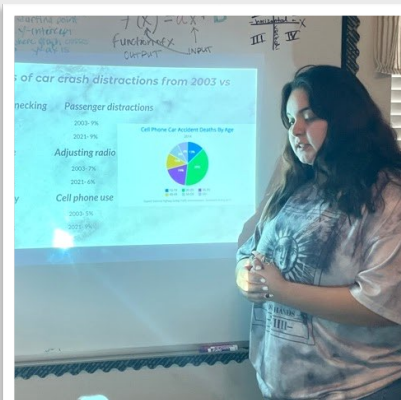
Next, to have some fun and learn about the British colonies and what life was like at that time the students each created a colonial persona including name, job title, family history, and salary then we lived through the period of time from 1763-1776 when Britain so harshly treated the colonies to learn about why colonists wanted to revolt. They personally felt outrage at taxes on their salary for simple things like tea and paper. They smuggled and hid things to not pay taxes just as real colonists had to do. They protested only to be sent to jail in England (another classroom) and debated on the justification of revolt and other suggestions or proposals of dealing with what was happening in their lives. Their heated debate led to a vote of 5-4 to declare independence from Britain just as in real life. They explored and talked about the American Revolution, its battles, and significant events along with the problems with the Articles of Confederation.

After portfolios and Thanksgiving break, they will jump right into analyzing and appreciating the Constitution with a real world look at the law from the perspective of a lawyer hopefully with a visit from a lawyer or judge in the community.

Amy Kiddy

Grades 10 & 11 Physics

In October, we began the **Driving the Roads Unit** of the Active Physics curriculum where students investigate and apply physics to driving situations. Concepts such as reaction time (with and without distractions), measurement errors (accuracy versus precision), average speed and acceleration were explored using hands-on experiments and applied using models of motion and distance-time, velocity-time and acceleration-time graphs. The Driving the Roads Chapter Challenge requires students to prepare a presentation to a board of driving instructors to demonstrate



their understanding of the role physics plays in safe driving. Mid-way through each unit, students have the opportunity to prepare a Mini-Chapter Challenge as a first draft and receive feedback from both peers and myself before making revisions for their final Chapter Challenge. Many of the Physics students are in the process of learning how to drive which has provided them with a meaningful context to apply their physics knowledge and understand the “why” behind safe and defensive driving rules.

When we return from Thanksgiving break, we will be completing the remaining sections of the unit on negative acceleration, yellow-light intersections and centripetal force around curves, and students will prepare and present their Driving the Roads Chapter Challenge.

Rachelle Petrovic

College and Career Readiness

In college and career readiness the students have been working hard on practicing and preparing for taking PSAT and SAT. So far they have increased the speed with which they can work through the test and are understanding the types of questions they have the most difficulty with while testing. When done they will be able to score their practice tests to get an actual score to know how well they are doing.

We have focused on learning styles and motivation in class as well by taking their learning style and using that information to help them study and learn in all of their classes including their dual credit classes. Motivation was broken down into its components of goal setting, attitude, and mindset to learn a bit about themselves and how to increase their motivation. They enjoyed several Ted talks and tested themselves on each component to help understand themselves and what motivates them better.

Last, they delved into finding colleges and career paths that may interest them in the future by researching and learning about specific colleges and degree programs. They were able to attend a college fair at a local private school which was really fun and helpful for all of the high schoolers. After Thanksgiving break we will come back to colleges, degree programs, and the cost of college while also working on



study skills. We will continue our SAT and PSAT preparation also. SAT will be in the spring for 11th graders on March 12, 2022. PSAT 9 and PSAT 10 will be in the spring for 9th and 10th graders with the date to be announced.

Amy Kiddy

Macroeconomics

The dual credit students in Macroeconomics have been working hard this trimester learning about all things economics. They have studied things like supply and demand, costs, gross domestic product, and many other related topics with online reading, discussions, assignments, and assessments of their learning. They have continuously done an outstanding job of working and learning each and every week and have blown away the college class average making all A's on every assignment and task. Way to go guys! We are proud of you! In November they will begin to study taxes.

Amy Kiddy

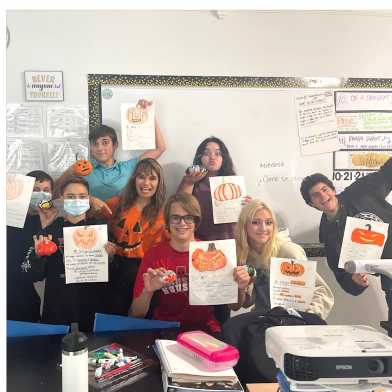
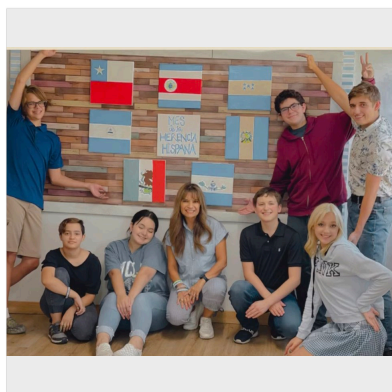
Grades 9-10 Spanish

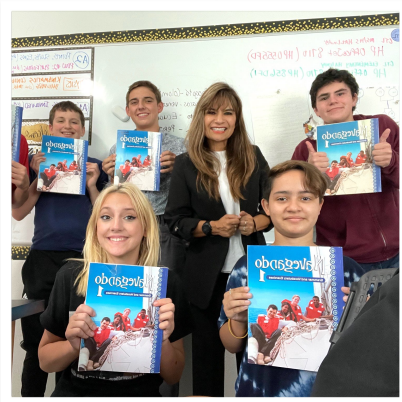
"October is a symphony of permanence and change." wrote Bonaro Overstreet. What a lovely quote to describe our October and November in our Spanish class.

Our Spanish learning journey has been a mix of multiple language and cultural skills. I donated a Spanish workbook to each student so they can keep up with the vocabulary and grammar review.

We celebrated The Hispanic Heritage Month by learning the Spanish speaking countries and their capitals. They made beautiful flags from the Latin countries on canvas. I am proud of their masterpieces. With this activity they practiced writing and speaking, colors, the verb "to be" + adjectives, structure of sentences and giving personal information.

For Halloween, although is not a Latin holiday, we celebrated by reciting a poem and describing in Spanish





their pumpkin friend. Repetition is key so poems and chants are a great activity to master it.

Day of the Dead is one of the most popular holidays in the Hispanic culture, and our students' favorite activity. They learned about this Spanish cultural fact and made amazing skulls to present it written and orally.

At this time we are now working on the Día de Acción de Gracias / Thanksgiving project where they are reflecting on the things they are thankful for. Writing, speaking, and creativity are always part of their grades.

We have been doing wonderful so far, and as their Spanish teacher I am beyond grateful for the opportunity to teach them my Spanish language and Spanish culture.

Patricia Pedraza