Comet Comments—

Coloma High School Newsletter

Principal, Mr. David A. Ehlers

May 2017

MISSION STATEMENT:

We will inspire all students to achieve at high levels and empower them for their future success.

INSPIRE TO ACHIEVE –EMPOWER FOR SUCCESS

FROM THE DESK OF DAVID A. EHLERS

The end of the school year always bring about the opportunity to celebrate the accomplishments and achievements of the senior class! This senior class earned many accolades and scholarships through their hard work and dedication! I have no doubt as they venture off to the next chapter of their life that they will continue to make us proud with their accomplishments! To the Class of 2017, I remind you that once a Comet, always a Comet!! #CometPride

I am sad to tell you that CHS is losing two staff members this year. Mrs. Cathy Haley is retiring after giving over 30 years to Coloma Community Schools. Her expertise, advice, and commitment will be missed! Ms. Kristen Maniscalco is leaving as well to pursue interests outside of education. She will be missed as well!

Thank you to students, parents, and staff for making the 2016-17 school year a success! I hope everyone has a relaxing and safe summer vacation so that they may return on September 5th ready to learn!!

Have a great summer!!

COUNSELOR'S CORNER

by Mrs. Fran Megyese

Students interested in taking summer school, we will be offering a morning session from 8:30 to 11:30 and an afternoon session from noon to 3:00. Summer school will begin on July 5th and run through August 4th. The cost is $50.00 per session. Students may sign up for both sessions. The class size is limited.

Registration is on a first come first serve basis. Please sign up in the HS office by June 30th.

EVERONE HAVE A GREAT SUMMER!!

DO ALL THE GOOD YOU CAN.
BY ALL THE MEANS—-
————————- YOU CAN.
IN ALL THE WAY
……..YOU CAN.
IN ALL THE PLACES —
————————YOU CAN.
AT ALL THE TIMES
YOU CAN.
TO ALL THE PEOPLE
……YOU CAN.
AS LONG AS YOU EVER CAN.

CW TECH ROBOTICS TEAMS DISPLAYS ARTISTIC SIDE

By Dr. Dale Quattrin

This year's *FIRST Robotics Competition (FRC)* season was quite successful with fun, awards and technological innovations. The CW Tech Robotarians were presented with the *Gracious Professionalism* award (St. Joseph Event), the *Engineering Inspiration* award (Shepard Event), and were Semi- Finalists (Gull Lake Event), and Quarter-Finalists (Shepard Event). The team also designed, built, and implemented an electronics board that solved the problem of wires coming loose during matches (Figure 1). The plan is to market and sell this device to other teams next season. The Robotarian group that collects data on other teams during matches also took a huge leap forward by integrating the Tableau statistical analysis software program into our tool belt (see nearby article).

However, not a team to rest on our laurels, immediately after the competition season ended a group of team members gathered together for two weeks (about four hours a night and on Saturdays) to quickly design and build a float in order to participate in the Blossomtime Grand Floral Parade on May 6th. The theme of the float was "'B' is for Bots" which reflects this year's Blossomtime theme: "If it's 'B', it must be Blossomtime!" The float integrates the steampunk theme of this year's game: *FIRST* Steam Works (Figure 2).

The float displayed the 2017 season robot shooting fuel cells (balls) into the boiler to increase the power for the spaceship liftoff. The robot is located on the steampunk-themed cart the team built to carry the robot around the event venues. The float also proudly displayed the *FIRST* logo and our sponsors. Team members were pleased to hear numerous positive comments and exclamations of recognition as the float progressed down the parade route. The plan is to also participate in the Peach Fest parade. This is a fun and exciting way to get the message about robotics, *FIRST* and Coloma's involvement out to the wider community.

The team members are already looking forward to the various summer and fall activities the Robotarians participate in: Cub Mobile Maker Faire, etc. This also includes hosting a junior high *FIRST* Tech Challenge (FTC) event the first weekend of December with about thirty four area teams. The Robotarians are seriously looking for someone they can help and is interested in being a paid mentor to help restart the Coloma junior high FTC team. We were not able to participate in our own event last year due to lack of adult supervision. Anyone interested, please contact Dr. Quattrin at the high school or the junior high administration office ASAP.

Robotics, Engineering and the Art of the Data

By Ryley Watson

Hello, my name is Ryley Watson and I am a student at Coloma High School. At Coloma, I am enrolled in Dr. Dale Quattrin's (Dr.Q) Engineering Course. In this class, we learn about the different fields of engineering along with what it take to work in these fields. Not only is Dr.Q my engineering teacher, he is also the head mentor of our school's robotics team: the CW Tech Robotarians (Team #2959). As you can see he plays a very important role in the lives of students.

During the 2016 season our robotics team ran into a major difficulty: our data collection system. During our robotics events, quantitative data (e.g., balls in goals, gears placed, robot climbs, etc.) is collected on each of the forty or more robots for each of the twelve matches each robot participates in. This is in addition to the qualitative data (driver experience, drive system type, etc.) collected through interviews of each teams at the event. The problem was that this data was all taken on paper. This process was very stressful when we would enter the paper data into Google Sheets or Excel. We would find that students would be collecting data on the wrong robots or would be on the wrong matches. With all of this stress, we would not be able to function properly and the data would soon become almost worthless. Poor information about the other teams impacts our team when we discuss match strategies with our always changing alliance members during qualifying matches or choose teams to be our alliance partners during the event elimination matches. In order to be successful, we had to change something. So at the beginning of the 2017 season one of our mentors from Whirlpool, Mr. Patrick Glotzbach, came to me, as the team's data captain, to ask what the plan would be for this year. After we talked for a while, he mentioned that *FIRST had offered the use of Tableau for students. I asked what this program is and he said it is a statistical analysis program that would make data much easier and much less stressful.*

After discussing the possibilities that could come out of using this statistical tool, we agreed to take a chance with Tableau. After deciding on Tableau, we then discussed what data we would need and what system we would enter data with. We sat down for about three hours on a Saturday morning to watch the video introducing the 2017 season *FIRST high school game: Steamworks (https://www.youtube.com/watch?v=EMiNmJW7enI). Through repeatedly watching the video, we learned all of the rules of the game. As we were viewing the video, Mr.Glotzbach had me write down what I thought would be the data that would lead us to victory. Once I got what I thought down, I reviewed the list and then removed or added some other items. Soon after I compiled this list, I was told to come up with how we would record the data. My number one goal was to make data collection simple yet effective. Mr.Glotzbach then told me about Likert-type scales. It is a numeric ranking system used to rate things like movies. We figured that, instead of having to count every little thing (such as balls in goals), it would be much easier to rate a robot's abilities for each of several tasks based on a scale of 1-5. With all of these decisions made, I was able to start working on the actual data system.*

As I started to convert everything into Tableau, I ran into a problem. I could not properly navigate the program. After a few days of trying to understand the program with no progress, Mr. Glotzbach asked Aunalytics out of South Bend if they could come and teach us how to navigate Tableau. Aunalytics is an area company that works with other corporations, such as Whirlpool, to develop strategies to analyze their vast quantities of data. Within a week they had came to our team's work location at Eagle Technologies and met with Dr.Q, Mr.Glotzbach, and me. They asked what specifically the goals were we wished to accomplish using Tableau. We told them that we wanted live feed data source where we could have students in the stands taking data on the matches and me in the pits with the drive team using the real-time information to develop match strategies. They told us that this would be possible and that we would just have to establish connections to a Google Form that I would need to create. With all the help and information from Aunalytics, we were be able to work towards having the best data system possible. We created a set of three Google Forms all accessible through a student's, mentor's or parent's smartphone: 1) a form for collecting team qualitative data during matches, 2) a form for collecting quantitative data through interviews of other teams, and 3) a form for taking pictures of the other robots and teams that could be quickly uploaded to the Google Drive. The data from all three of these

Continued on next page…..

forms were then automatically tied together using the team's number as the common field. Because Tableau would automatically update, quickly analyze, and graphically display the data, we had real-time information for each robot at the event, including our own.

At the St. Joseph District Event, we finally got to test out our new data system. We soon found out that several of the questions we asked during the data collection were actually pointless and did not have much effect on the information outcome. So, after I analyzed the data with the team and mentors, we decided what we should cut and add to the data forms. One of the big things that we all wished for was a Offensive Power Rating or OPR (See Figure 1). With this we would be able to see who was the best team that would work with us. With the ability to quickly analyze and visualize this and numerous other data points, such as climb rate and gear placement rate (See Figures 2-5), other teams began to search us out because of the usefulness of our data. By the Shepard Event, a couple weeks later, we had our pits flooded with judges and other teams wanting to see our data system in action. Because of the uniqueness of our team's data system and mechanical innovations (e.g., roBeast in nearby article) at the Shepherd event we won the second highest award given to a team: the *FIRST Engineering Inspiration Award.*

With all of the teams wishing to use our data and wanting to learn about our system, I have decided to host a Tableau camp this summer. Through this, I hope to spread the word of the Robotarians, *FIRST, and the fun one can have with statistics and data. I believe that my knowledge of Tableau and my experiences with the CW Tech team helped me earn an internship with Whirlpool for this summer. Also, next year, I will be competing in the nationwide Tableau statistics contest representing my team and community.*

"Data is Fun!"
Pat Glotzbach

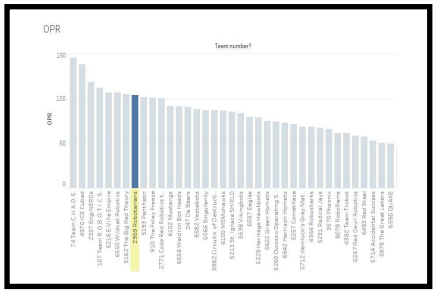


Fig 1

Fig 2

Fig 3

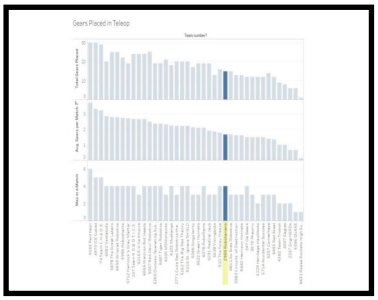


Fig 4

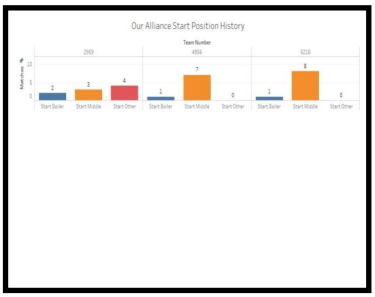


Fig 5

FEA/Educators Rising

by Mrs. Cathy Haley

When you look at the charter that hangs in Mrs. Haley's room you will see that FEA (Future Teachers of America) was started at Coloma High School in 1959. For many years Mrs. Mow was the FEA advisor and when she left FEA became a CTESO (Career & Technical Education Service Organization) for Cadet Teaching. Over the years FEA has become Educators Rising and is now a web based organization. Over the years Cadet Teaching has performed many community services from cleaning and planting in the courtyard to adopting a road. Recently they have been giving grants to teachers who mentored Cadet Teachers . This year 12 grants of between $100 and $150 were given to teachers who were mentor teachers for cadets to purchase supplies for their classrooms. The Cadets wrote the grant application, approved the grants and wrote the orders for the supplies. Also the members of FEA/ Educators Rising planted flowers and cleaned the flower box in front of the school. This year the FEA / Educators Rising purchased a hose, hose reel and a soaker hose for the school.

Social Studies Department

By Dan Roberts

In United States History, Coloma High School students have been learning about the administrations of Bill Clinton and George W. Bush. Students developed projects and completed unit essays as part of their learning. Major themes of this unit include how technology advancements changed society, the successes and shortcomings of the Clinton administration, challenges that governments face in fighting terrorism, and how unexpected events affect a country's and government. At the conclusion of the unit students will have improved their essay writing skills and their ability to construct and deliver a presentation to their peers. Final Exam preparation will begin next week as we look to review all topics from WWII to the present. That will conclude the school year in United States History at Coloma High School.

Math Department News: Spheros!

by Mr. Brian Klee

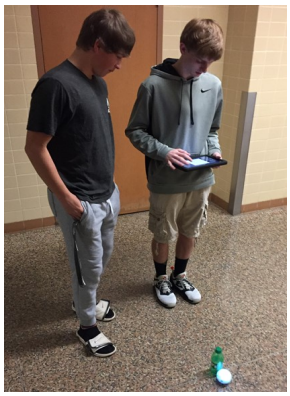
Often times students don't really get to experience how concepts learned in school can be applied to solve real world problems. This past month, students in both Mr. Klee's and Ms. Houston's Geometry classes faced the challenge of using geometry and trigonometry to write the code needed to program a robotic sphere called a "Sphero" to travel around a triangle with the goal of knocking down pop bottles at each vertex of the triangle. The activity required not only mathematical problem solving, but also reinforced students perseverance in overcoming repeated failures. Nick Hatton explained that, "When you finally get all of your measurements right it really feels like you accomplished something".

After completing the activity, Mr. Klee's 2nd hour shared what they learned with Ms. Arent-Seabury's kindergarteners who happened to be starting to learn about polygons. Many Geometry students were impressed with how much the kindergartners were able to explain about the side and vertices of a square. The collaboration between classes was a wonderful reminder of the natural curiosity and eagerness to learn that we all have inside of ourselves.

Special thanks to Ms. Kimmerly whose planning, organization and hard work made this activity go very smoothly, as well as to Ms. Haley for loaning us the CTE I-Pads to make the programming more intuitive. Students had a fun time problem solving while re-enforcing many of the concepts that they've learned throughout this year and previous school years.

Nicole Swisher and Samantha Stewart show kindegartners how to program the Sphero.

Mrs. Arent-Seabury's kindegartners and Mr. Klee's Geometry class pose for a group picture after spending time learning and having fun.



Collin Angelo watches as Jaden Miller starts aligns the aim of the Sphero.

Virginia Wendzel prepares to record the Sphero as Nick Hatton double checks the code he programmed.

Krystina Hornus and Hannah Bryant discuss double check the math as Conor Hutchins-Linderman and C. J. Oehler adjust the values used in their coding.

WHAT DO YOU KNOW ABOUT SUMMER?

Fact #1 – The Eiffel Tower grows in summer. This historic structure is made of iron. Metal expands with heat. As a result, the Eiffel Tower can grow more than six inches in hot weather.

Fact #2 – Ice cream is sold the most in July. In July, Americans celebrate National Ice Cream Month. U.S. citizens consume about 5.5 gallons per year (on average). Higher temperatures affect sales.

Facts #3 – Frisbees were invented by accident. If you visit the park in the summer, you probably enjoy tossing a Frisbee. This toy was creased in the 1870s as a pie plate. (Yum!) Students started throwing them around in 1940s changing the use to a form of entertainment.

Fact #4 – Roman politician and general Marc Antony named the month of July, in honor of Julius Caesar.

Fact #5 – Summer Olympic games used to be exclusive. This event began in 1896 at Athens. Initially, the females could only be a spectator. This reality changed by 1900.

Fact #6 – An educator invented summer vacation. His name was Horace Mann. In 1837, he was elected as Secretary of the Massachusetts Board of Education. Mann used this platform to reform the school system from adding a break and developing uniform training for teachers.

Fact #7 – Summer breaks vary around the globe. Children in industrialized countries go to school for more hours in a day and more days per year. Summer Breaks are shorter as well. Be grateful if you reside in a high-tech environment.

Fact #8 – The first day of summer has a name. The summer solstice kicks off the season. This day usually falls on June 20 or June 21. The term solstice is Latin for sun stand still.

Fact #9 – Three holidays occur in the summer. Memorial Day, Fourth of July and Labor Day all occur in summer. These celebrations include a favorite food for most – barbecue. This delicious fare is either baked in an oven or grilled.

Fact #10 – Watermelon is a vegetable. As the air heats up, so does the consumption of watermelon. This vegetable is part of the cucumber, squash and pumpkin family. Americans eat 15 pounds each year.

Class of 2017

Congratulations!

Back Row L-R: Grant Kroschel, Jacoby Kroschel, Patrick Guntz, Benjamin Ball, Gregory Olsen
Front Row L-R: Jenna Walter, Destiny Motton, Austin Hebner, Cassidy Fickett, Kiara Cole

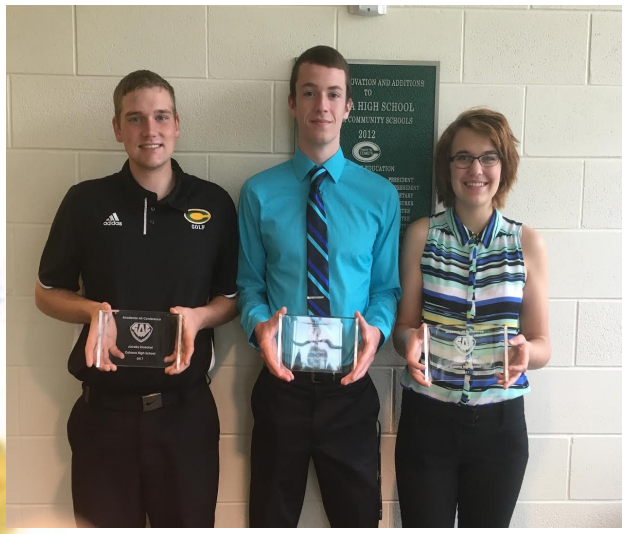
Left to right: Destiny Motton, Jenna Walter, Nicolle Larson, Grant Kroschel, Cassidy Fickett, and Harrison Spaulding

2017
GREEN AND GOLD WINNER
Grant Kroschel

Senior Awards 2017

Neil Peters Award

Jenna Walter



SAC Academic Award

Jacoby Kroschel
Gregory Olsen
Cassidy Fickett

SAC Athletic Award

Grant Kroschel
Nicolle Larson

Dylan Bohle
Kiara Cole
Naomi Cottrell
Ariel DeLaTorre
Gabriel Doggett
Casey Feller
Cassidy Fickett

Nicholas Forrest
Zachary Heater
Austin Hebner
Dustin Ikerd
Miya Jordan
Grant Kroschel
Jacoby Kroschel

Nicolle Larson
Destiny Motton
Zane Lute
Shawn Moore
Gregory Olsen
Dylan LeClear

Briannah Rush
Katherine Schmidt
Trystan Skaggs
Samuel Tavolacci
Jennabeth Thomas
Ryanne Wagner
Jenna Walter

COLOMA HIGH SCHOOL
MAY STUDENTS OF THE MONTH !!
Congratulations to:
(l-r) Isabelle Stevens—Freshman, McKenzie Emrath—Sophomore, Matthew Davis—Junior