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Saydel STEM Focus

EMPOWERING

PREPARING

INSPIRING

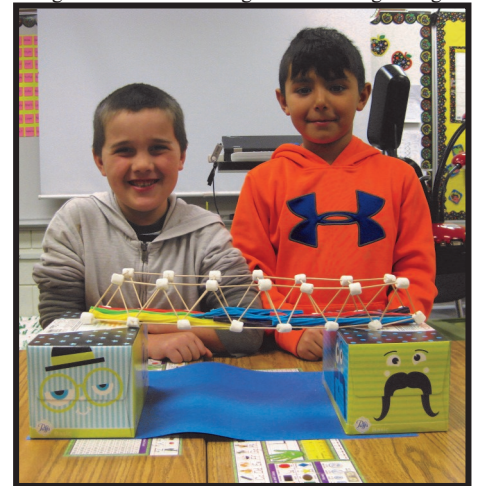
Cornell STEM Experiences

Are the number of seeds inside of a pumpkin proportional to the over all size of the pumpkin? Do different solutions placed inside a pumpkin impact the rate of rotting? If you do not know the answers to these questions you may want to ask a 1st grade student in Mrs. Bierbaum's class at Cornell. In October, Mrs. Bierbaum allowed her students an opportunity to experience science and math with hands on lab experiences. Student had an opportunity to work in productive groups to apply basic measurement practices as well as hypothesing testing. The students enjoyed the learning experience and were able to answer class created research questions based on the information they gained during the pumpkin lab experience.



Another STEM experience at Cornell required students to answer questions such as how do material properties and characteristics impact the design of a structure? How do geometric shapes increase the strength of a structure? In November, the Cornell 2nd grade team challenged their students to answer these questions. 2nd grade students were learning more about the theme of bridges during English block with their Wheatley Unit. The 2nd grade team continued the bridge theme into their science block and had the students explore material properties and characteristics through the bridge design unit. The teachers and students had a great time working on this

2nd grade students showing off their bridge designs.



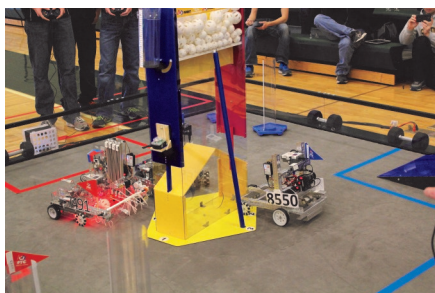
project and learned a lot about geometric shapes as well as material characteristics and properties. Mrs. Dennis created a youtube video highlighting the students work during this unit. To view the video please go to: <http://tinyurl.com/m2fvoy7>

Professional Conferences

Saydel STEM teachers have had an opportunity to participate in professional development opportunities during the 2014-15 school year. On October 22nd, six teachers from Saydel attended the Iowa Math and Science Teachers Conference in Ames, Iowa. The conference had great breakout sessions, STEM vendors, and an opportunity to collaborate with other math and science teachers from around the state. On November 19th, five teachers from Saydel visited a TAP school in Houston and attended the National Council of Teachers of Mathematics

(NCTM) conference. The conference offered two days of intensive learning from math experts from around the United States. Finally, four members of the Saydel STEM team will attend the National Science Teachers Association (NSTA) Conference in Chicago on March 11th. The group is looking forward to learning more about the Next Generation Science Standards (NGSS) as well as obtaining other resources to assist with the delivery of science content.

FTC Robotics Update



Saydel high school students have been working hard each Tuesday after school on their FIRST Tech Challenge (FTC) robot. Students have made multiple revisions to the robot and program throughout the year. Revisions to the robot have stemmed from competing in three local robotic meets and learned how to improve robot efficiency and ability. One of those league meets was hosted by Saydel on January 10th. The schools at this meet were part of the Central Iowa Robotic League (CIRL) which is comprised of 11 local schools. These 11 schools will join 14 other teams at the state qualifier meet at John Deere Financial in Johnston on January 24th. Guest are welcome to come support the Eagles.

Science Center of Iowa Trip

On December 4th, 2014, Cornell 3rd grade students had a great opportunity to visit the Science Center of Iowa to listen to astronaut Clayton Anderson and watch the landing of new spacecraft Orion. Mr. Anderson provided the students with information about Orion's purpose as well as planet proximately to earth. NASA is excited about the possibility

of further space travel with the technology of Orion. Mr. Anderson informed students Orion will allow mankind safe travel to Mars. Students also had an opportunity to explore the Science Center of Iowa's dinosaur exhibit, planetarium and interactive spaces. Special thanks to Master Teacher Traci Lust for arranging the experience for the students.



Cornell 3rd grade students at the edge of their seat's while listening to astronaut Clayton Anderson.

Innovation Station Makerspace

Students are flocking to the Woodside library every moment they have free thanks to the recently implemented innovation station makerspace. Makerspaces are defined as a physical location where people can work together, share resources, and construct using a vast amount of resources. Woodside students have been given monthly scenarios which require them to develop a solution to the problem using technology, building materials, or a combination of both. Solutions have been showcased in the library for other stu-



Dominic Baker (6th) and Katherine Tylavsky (7th) finished 1st and 2nd place in December's Innovation Station challenge titled A Brand New Toy.

dents to see each students creative side and innovative approach to solving the problem. The space was made possible thanks to the hard work and energy of new librarian Aileen Meyer as well as the donations of staff and parents. If you are interested in learning more about makerspaces please visit <http://makezine.com/>. Donations for consumable office supplies will still be accepted at Woodside library or contact heyerjoshua@saydel.net.

GETTING TO KNOW..... Zach Antle

Zach Antle was recently hired as a math teacher at Saydel high school. I caught up with Zach to ask him the following questions.

Where are you from?

- I grew up and still live in Alleman, IA.

Where did you go to College?

- I attended Grand View University.

Why did you decide to become a Math teacher?

- I believe, the essential life lessons we learn from math are attention to detail and perseverance. I became a math teacher to teach students life lessons, in conjunction with math, to better equip students for life.

What hobbies do you have?

- I enjoy spending time with family, coaching, watching movies, and continuing my math education at Grandview.

Please welcome Zach to Saydel Community School District.

Upcoming STEM Events:

- FTC Robotics State Qualifier
John Deere Financial-Johnston
January 24th 9:00am
- South Central STEM Festival
William Penn University
January 27th 6:00pm
- Girls in Science Festival
Science Center of Iowa
February 7th 11:00am
- NSTA National Conference
Chicago
March 12th-15th
- Iowa STEM Summit
Iowa Event Center
March 30th 8:45am

STEM Resources

Teachers looking for various STEM resources can join the Schoology group called Saydel STEM Resources. The access code for this group is: HDN38-5G5DW

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