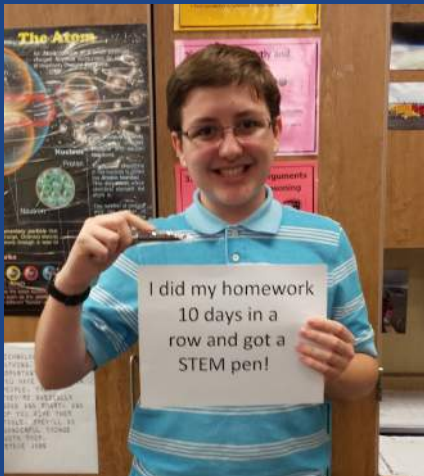


AMS STEM *November Parent Update*



Congratulations to Charles on completing 10 homeworks in a row and earning an honorary STEM pen, which is a pen, stylus, and light all in one !



Students Caleb, Jiana, and Diven check out various 3D printed items at the National Additive Manufacturing Innovation Institute (NAMII) in downtown Youngstown.

Hi Everyone,

This is your STEM Parent Update for the month of November! It has been an exciting and engaging month for the program. On Nov. 14th, students went to the National Additive Manufacturing Innovation Institute followed by the Historical Center of Labor and Industry both in downtown Youngstown. The students were able to see modern methods of manufacturing (3D Printing) followed by learning about the past manufacturing and steel production that put Youngstown on the map. It was a trip into the future followed by a visit to the past for sure. We also enjoyed meeting with many of our parents for conferences and discussing the progress of your children.



Jiana and Jacob pose at NAMII.



Tyler holds a piece of art that was 3D printed as one piece at NAMII.

Last spring, students launched a weather balloon into the outer reaches of the atmosphere into space. The balloon contained three GoPro cameras and it recorded its ascent and descent as well as its location via GPS. Below is the link to a video the students have been working on of the launch, as well, as a QR code to the video on the right. (Thanks Victor and Dylan!)



<http://youtu.be/1OfiS8o4NN4> (Click Here for Weather Balloon Video)

7th Grade

- Students began the Medical Detectives Unit and are learning about vital signs and the five senses and how they are used to solve medical mysteries. Emphasis of the major body systems will be utilized and referenced when we perform our various dissections, such as a sheep brain, eyeball and frog next month. Parent permission slips for student dissections will be sent home in early December.
- Students completed their ancient civilization playgrounds and many parts were able to be printed with our 3D printer. Students learned how to build their prototypes and the basic concepts of printability.
- In Math, students began computing rates, ratios, percents and proportions. Many of these concepts connect well with our STEM unit Design and Modeling and involve many real world problems.



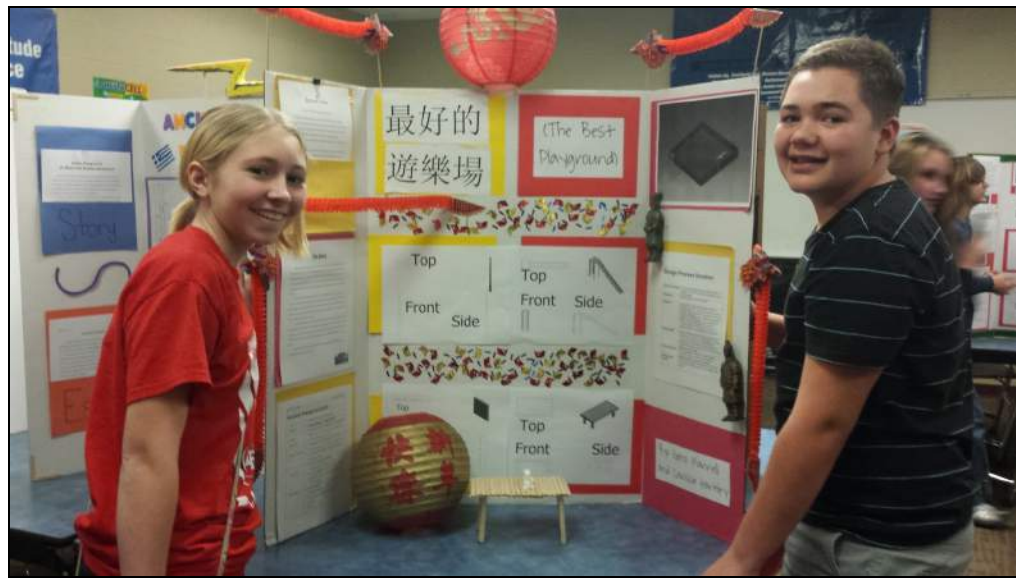
Isaac was in his element holding various 3D manufactured car parts at NAMII.



Trees are going up! Don't forget to bring in a STEM ornament if you want to. Also, students that are participating in Secret Santa have already drawn names.



Payton poses at the Historical Center of Labor and Industry in front of a mural of hard-working steelworkers at Youngstown Sheet & Tube in the 1930s. Students learned workers at that time were not much older than themselves.

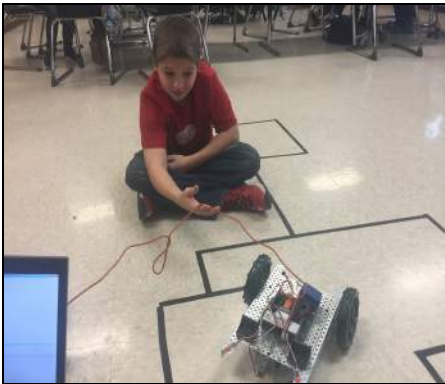


Carissa and Geno display their Ancient Chinese Playground design.



8th Grade

- The 8th graders just finished up their VEX robotic system engineering projects. The students were given problems, and they had to design, build, and program a robotic system to solve it. We had a lot of great submissions. One of our students, Romond, made this video showing off a few of the working projects. <http://youtu.be/UgGMOrolzA> (VEX robotic video)
- We are also halfway through Isaac Asimov's *i Robot*. Will Smith has yet to make an appearance.
- We are now starting our next STEM module, Green Architecture. The students are already learning about different housing styles and architectural design.



Congratulations to both the 8th and 7th grades STEM classes who won the March of Dimes contest this month with both 1st and 2nd place in the whole building. We have some very generous and considerate students. As their reward they won a Chick-Fil-A party!

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