



Austintown Middle School

STEM Newsletter



December 2016

Happy Holidays

Calendar

Dec. 22- Last day before break

Dec. 23- Jan. 1 Holiday Break

Jan. 2- Classes Resume

Jan. 11- 2hr. Early Release

Jan. 13- End of 2nd nine weeks

Jan. 20- No school for students



8th grade STEM students pose with their Secret Santa gifts.

Season's Greetings STEM Families,

December was a month to remember. It was short and went fast, but the students still managed to accomplish a lot. In the next few weeks, we will begin preparing for the Soap Box Derby STEM Gravity Racing Challenge coming up in April and May. Teams from all over the country come to compete and test their racing skills. Our students will also participate in additional contests that require writing and technological skills, such as a GRC infomercial showcasing their team, projects focusing on the history of the sport, press-release, and a photography contest. This project has something for every student's interest and skillset.



Students 3D printed snowflake ornaments for the STEM Christmas tree.



6th graders build with VEX during the monthly Jr. STEM meeting.



Progress Book will be used to post grades the same as last year. See student login instructions at the end of this newsletter. Login info is the same as last year.



Aliva explains her windmill design to interested 6th graders during the monthly Jr. STEM meeting.



Colin, the 3D printer guru, instructs students on how to use the 3D printer during the monthly Jr. STEM meeting.

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Make sure your child is regularly logging on to Schoology to keep up with assignment due dates and current class information.



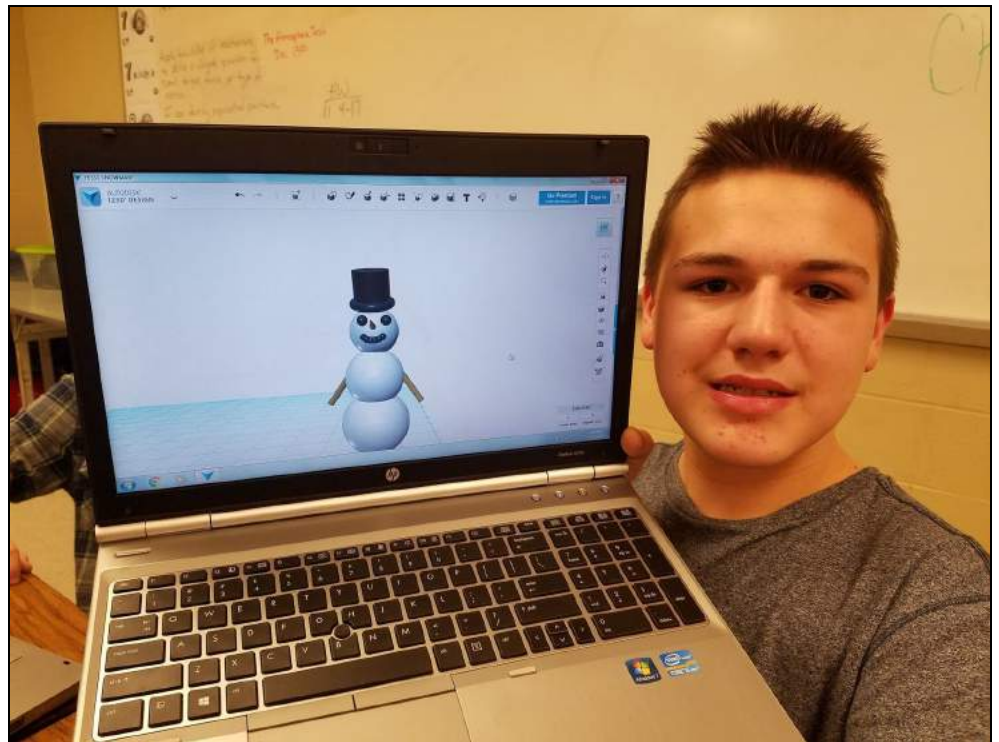
Our 3D printer has been broken for the past month. We hope to have it back up and running shortly after break.



Randy and Robert pose with 6th graders interested STEM during the monthly Jr. STEM meeting.



Ryan and Joe were all smiles teaching electricity during the monthly Jr. STEM meeting.



Payton displays his snowman he created using 123D, an internet-based computer modeling software. [123D](http://123d.com) is free to the public and is compatible with most 3D printers.



The Grinch stealing the Snap-Kits from the poor STEM students.



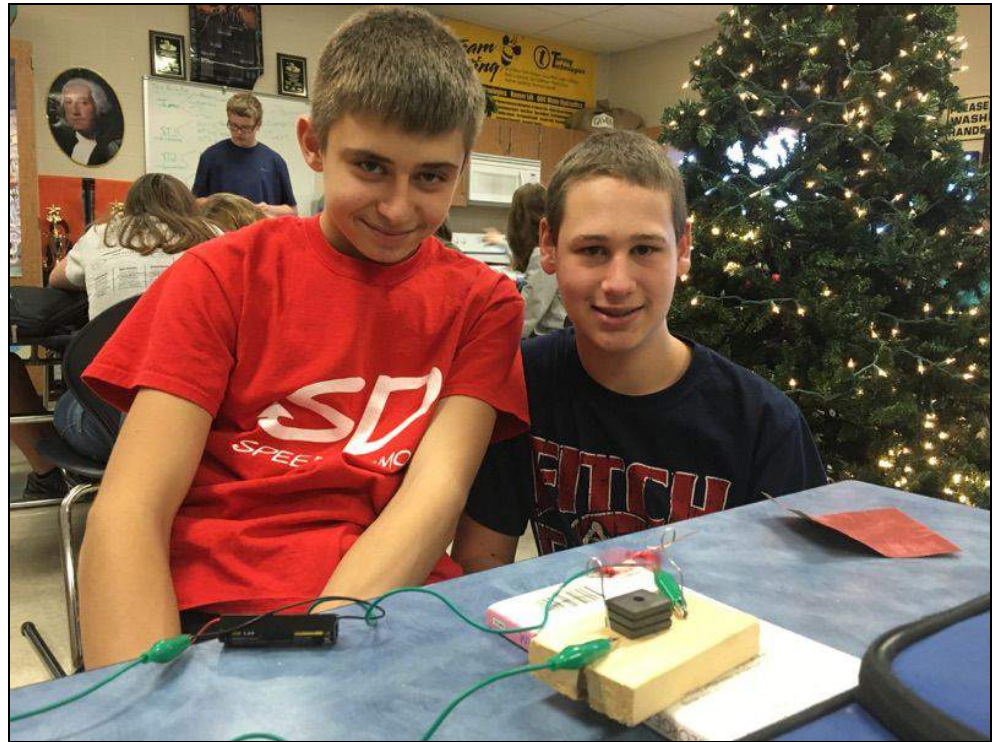
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Students will begin preparing for the Soap Box Derby season. Pictured above, Colin checks brakes and steering during inspection at a Cleveland race.



Students are using Moby Max to sharpen their Language Arts skills and stretch their learning.

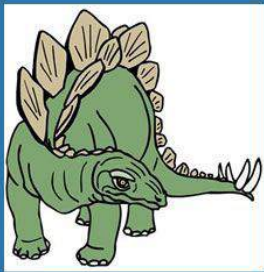


Colin and Jacob test the potential of various insulator and conductors in the *Magic of Electrons* unit.

7th Grade

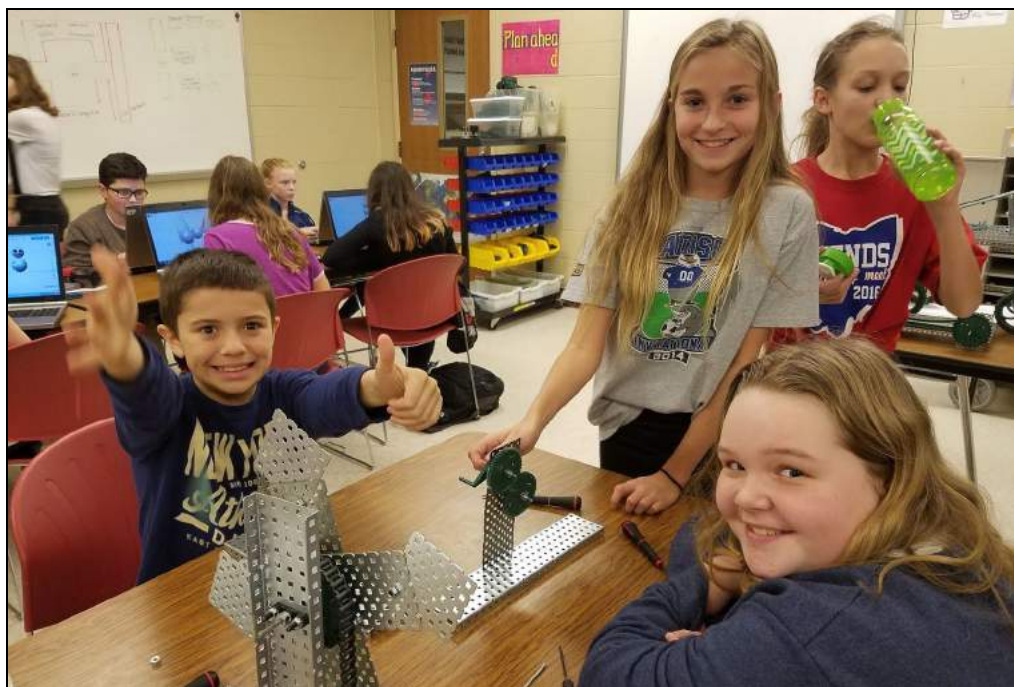
- ★ Students began the Automation and Robotics Unit. In the beginning, students explain gear ratios, the relationship between torque and speed, and the purpose of various different mechanisms used in everyday life. They use this gained knowledge to build a series of mechanisms designed to perform various tasks to survive the apocalypse in the Survival Challenge!
- ★ In Science, students learned about the atmosphere. Next, we will learn climate and biomes of the world.
- ★ In Math, students are focusing on solving real world problems using ratios, proportions and percents. Emphasis is on determining cost of clearance items and percent markup of retail items and correlates well with the post Holiday shopping sales!

What do you call a sleeping dinosaur?



A dino-snore.

Moby Max...



Students show their enthusiasm during the Jr. STEM meeting.



Students were eager to invade Mr.F's library while conducting research on writing their informational speeches.



Students surprised themselves while constructing parallel and series circuits designed to turn fan blades.



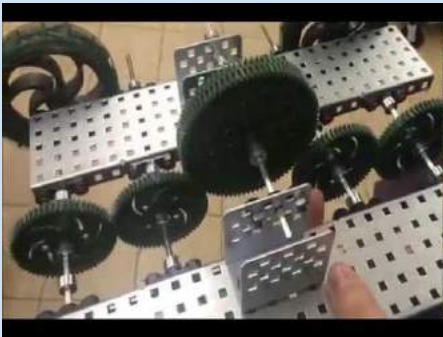
Emma and Maryn are not baking cookies and that is not an oven.



Candice and Emma show off their functioning DC motor..



Joey, Aidan, and Connor learn about physical and chemical properties by making slime during the Jr. STEM meeting.



Students built a car designed to travel in both 2 and 4 wheel drive, go over rough terrain and be steerable from the top.



7th and 8th graders did an impressive job delivering their informational speeches on historic figures before break. .



STEM students teach many eager 6th graders the basics of computer modeling using 123D during the monthly Jr. STEM meeting.



Jacob and Isabella instruct students on circuitry and how a Morse Code machine works during the monthly Jr. STEM meeting.

8th Grade

- ★ We are finally wrapping up our Magic of Electrons unit, and the final projects are underway. Next, we are looking ahead to the Green Architecture unit, where students will be learning about housing styles, design, scale, and construction utilizing architectural software and scaled dimensional lumber.
- ★ In Language Arts we finished *Animal Farm*, and will be doing a final project on the novel after break. Also, the students did a great job with their informative biographical speeches.
- ★ In Science, students concluded the Earth Science unit and know more about earthquakes and volcanos than any adult I know. Next they will begin the Genetics and Heredity unit.

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