



Austintown Middle School STEM Newsletter



November 2016



Calendar

Dec. 8- Jr. STEM Meeting after school until 4pm

Dec. 14- 2hr. Early Dismissal

Dec. 23-30- Winter Break

Jan. 2- School Resumes

Jan. 13- End of 2nd nine weeks



We will be using Schoolology, an online classroom management site. Content and assignments are there. Your child can show you how to log in using their school email and password. The phone app is phenomenal and is free.



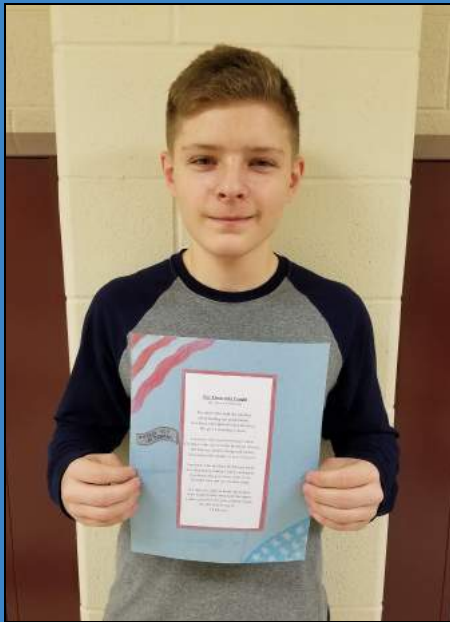
The STEM ladies pictured above give a thankful salute to our veterans while displaying their Veteran's Day poems.

Greetings STEM families,

October was an engaging month for students in the Austintown Middle School STEM program. Seventh graders concluded the Project Lead the Way module, *Design and Modeling*. For their final project, students created their own ancient playground based from a civilization they are leaning in social studies class. Students applied their learning from the past nine weeks and designed, prototyped, and 3D printed many of the parts of their playground. Eighth graders finished *Automation and Robotics* and commenced *Magic of Electrons*. Recently, students made Morse Code machines learning about electromagnets and electricity. Currently, they are building circuits utilizing the function of switches, transistors, diodes, resistors, capacitors and motors with our snap circuit kits. Lastly, students organized and held the second Jr. STEM meeting. It was a huge success and sparked interest in STEM for many 6th grade students.



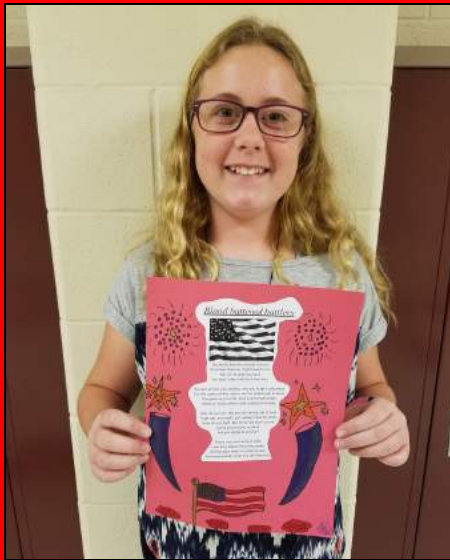
Progress Book will be used to post grades the same as last year. See student login instructions at the end of this newsletter. Login info is the same as last year.



Mason poses with his Veteran's Day poem. All poems were given to veterans as a thank you for their service.



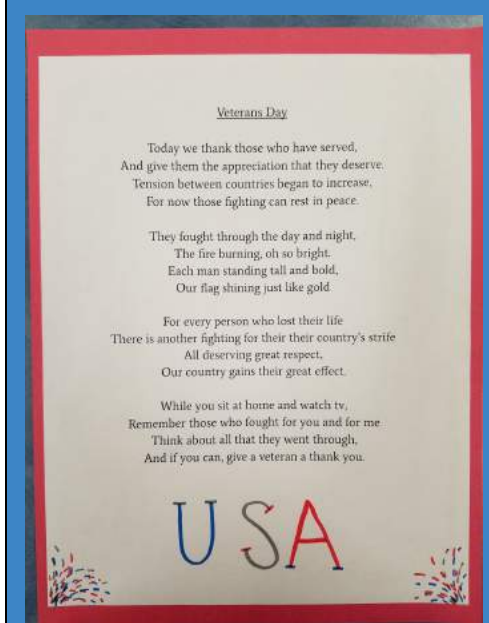
Emma, Zoe, and Bella pose with their Ancient Viking Playground project complete with a 3D printed mud pit!



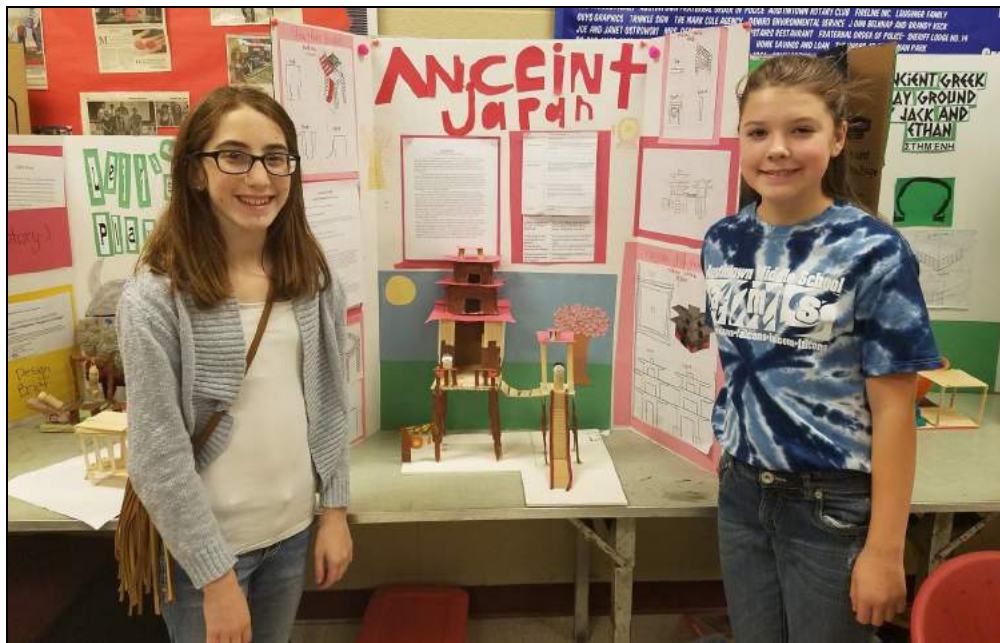
Aliva poses with her Veteran's Day poem. All poems were given to veterans in appreciation for their service.



Joe received a very thoughtful package from the American Institute of Professional Geologists in response to his professional business letter he wrote to them. He received a personalized letter detailing the geologist profession, a ruler, a pin, gemstones, many picture books, and his very own piece of pyrite, otherwise known as fool's gold.



An anonymous student's eloquently written poem for Veteran's Day.



Alivia and Maryn pose with their Ancient Japanese Playground project complete with a pagoda and elements of Japanese culture.



Daniel and Deanna were smiling siblings on the field trip to YSU while touring the mineral museum.

The Vindicator

« News Home

AMS STEM students are curious about future careers

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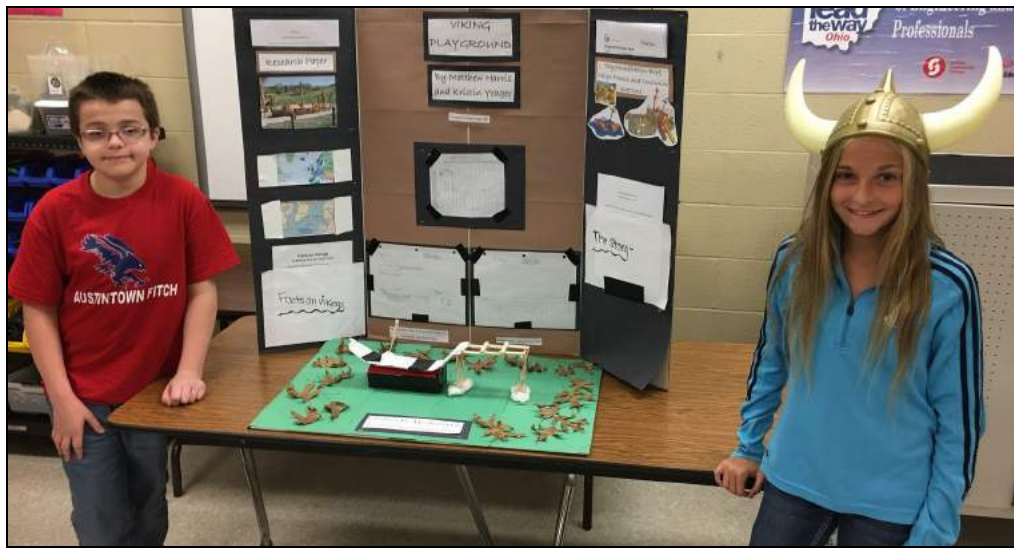
Nearly 55 seventh- and eighth-grade STEM students at Austintown Middle School recently took some time to focus on their future, and they are setting their goals high.

Students wrote professional letters to universities and businesses requesting information on a particular career. Some included surgeons, pediatricians, dentists, architects, chefs and electrical, mechanical, architectural and aerospace

Anthony was featured in the *Town Crier* for his professional business letter he wrote to the MIT Electrical Engineering Department. They sent him his own electronic experiment!



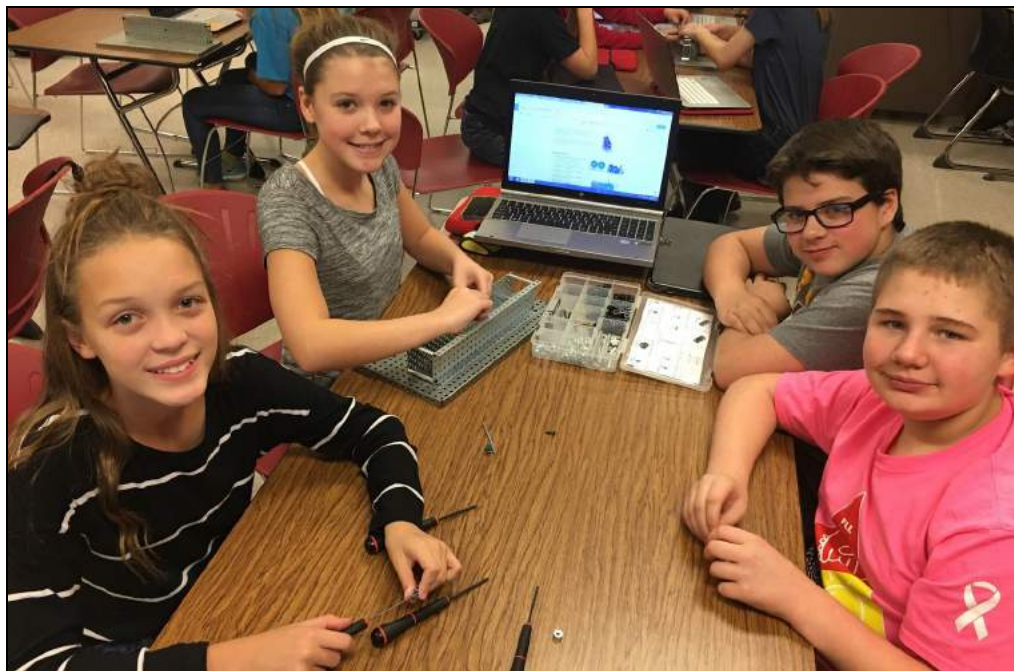
Colin, Jacob, and Colin applied their learning of plate tectonics and volcanism in the recreation of this model volcano.



Matthew and Kristin displayed their Ancient Viking playground.



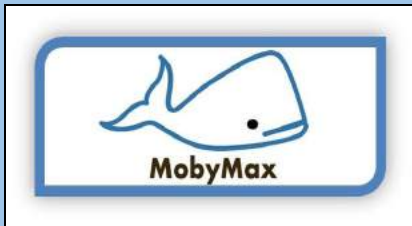
If you have not already, have your child show you how to log into [Schoology](#). From here you can access much of the content and assignments used in class.



Laura, Maryn, Jon, and Ryan build various types of gear trains and simple machines using VEX kits.

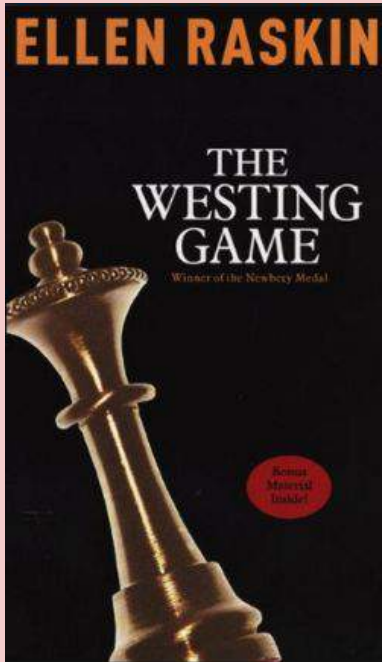
7th Grade

- ★ Students started the Automation and Robotics unit by working collaboratively to build many different types of mechanisms and simple machines. Students compared and contrasted their mechanisms by the direction of their inputs and outputs, mechanical advantages, and gear ratios. They will expand on this learning by designing, building, and programming automated robotic systems.
- ★ Students created 3D models or dioramas of a scene of their choosing for their recently finished novel, *Life As We Knew It*. Students performed character analysis and explored plot and themes while reading the “who done it” mystery, *The Westing Game*.



We are also still utilizing MobyMax to work on specific Language Arts skills.

★ In Math, students are nearing the end of the unit, *Stretching & Shrinking*. In this unit, students analyzed the Wump Family, a family of game characters, to determine which creatures were similar figures and which were imposters. In addition, they learned about scale factor and scale drawings. This will prepare us for the next unit *Comparing & Scaling*, which deepens their prior learning by incorporating ratio, rate, and proportion problems.



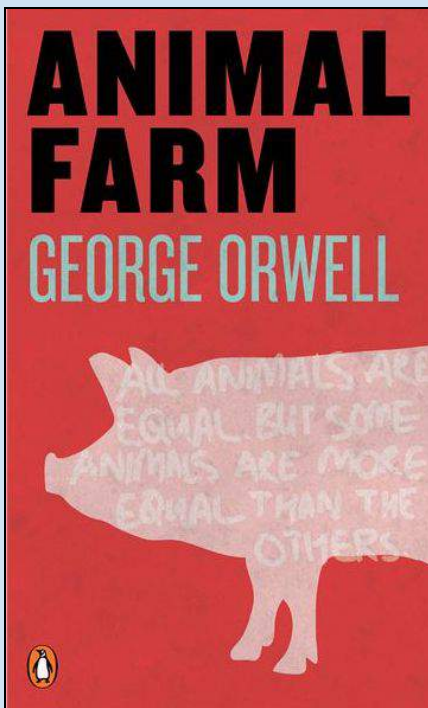
7th graders began reading the "who done it", *The Westing Game* by Ellen Raskin.



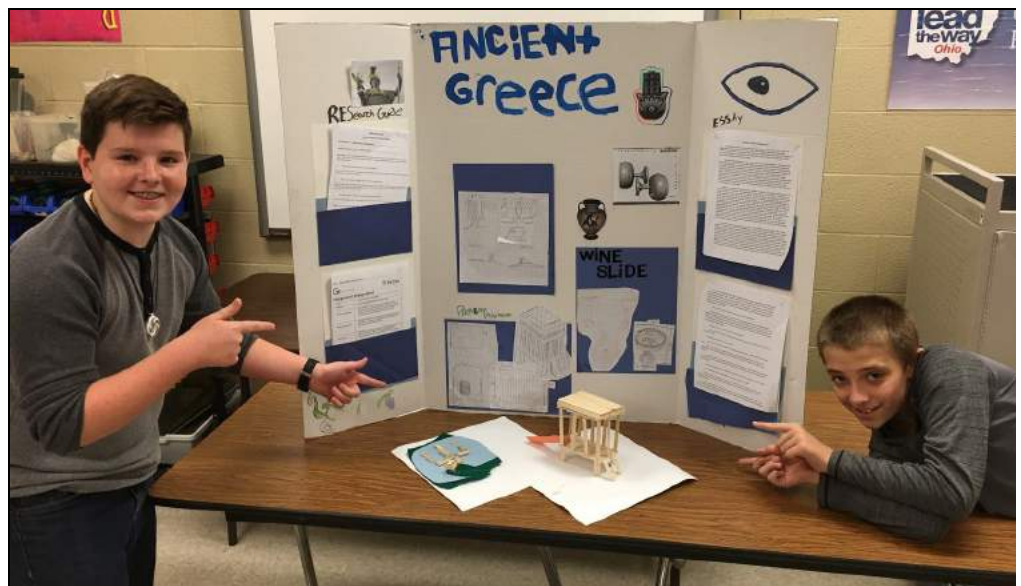
Bella, Zoe, Conner, and Aiden began building mechanisms with VEX.



Julia demonstrates how a Morse Code machine works.



8th graders are analyzing the power of politics and influence of leadership in *Animal Farm*. This transfers well given recent elections and political tensions.



Stevie and Conner posed with their Ancient Greek playground project.

8th Grade

- ★ The 8th graders have been learning the “Magic of Electrons” this past month. We have built our own working DC motors and Morse Code machines (electromagnets), and we are currently building circuits utilizing the function of switches, transistors, diodes, resistors, capacitors and motors with our snap circuit kits.
- ★ Social Studies students have also started to research for their projects on European exploration.
- ★ Students began the Earth Science unit on geologic record. They worked as a class to create a 38-foot Geological Time Scale.
- ★ In General Math, students are concluding the unit titled, *Looking for Pythagoras*. The main concept was the Pythagorean Theorem which is used by architects, tile layers, and other builders to ensure a precise 90 degree angle.



Mr. Freudenberg was nominated by Cally Brown as Dunkin' Donuts
Class Act for being such an amazing teacher and role model!

Contact information:

Jason Freudenberg- STEM Teacher

Email: jfreudenberg@austintownschools.org

Doug Eisenbraun- STEM Teacher

Email: deisenbraun@austintownschools.org

Danielle Chine- K-12 STEM Instructional Coach

Email: dchine@austintownschools.org

Austintown Middle School

800 S. Raccoon Rd.

Youngstown, OH 44515

www.austintownschools.org

330-797-3900

[Austintown STEM Website](#)

[AMS STEM Student Website](#)

