



Austintown Middle School

STEM Newsletter



January 2017

Calendar

Thurs., February 16 Parent and Teacher Conferences
Fri., February 17- No School
Mon., February 20- No School for President's Day
Tues. Mar. 7- AMS STEM students at AIS STEM Day
Mon. April 10 - Fri. April 14- Spring Break
Sat., May 20- Akron Soap Box Derby Race
Wed. May 31- Last day for students



Randy, aka "Tony" and Zane model safety equipment used in a steel mill at the Youngstown Historical Center of Labor and Industry.

Hello Everyone,

This is your STEM Parent Update for the month of January. It was great to come back from Christmas and hit the ground running. There are a few important announcements. First, parent-teacher conferences will be held on Thursday, Feb. 16 from 3-9 pm in C202, Mr. Freudenberg's room. It is first come, first serve. Secondly, building for the Soap Box Derby has begun, and students are very busy constructing the cars and beginning the optional educational contests, such as the infomercial and press release. Students will continue to work on the cars and optional contests in the next few weeks along with other STEM projects to prepare for the race on May 20th in Akron and also possibly April 29th in Cleveland. We will be accepting sponsorship forms until March 1st (attached below).

Parent-Teacher Conferences

If you scheduled a conference through Doodle, they will be held Thurs. Feb. 16 from 3-9 pm in Room C202.



Aliva and Mia create open and closed circuits using resistors and switches in the *Magic of Electronics* unit.



Goodbye Stock cars! Colin, Robert, Daniel and Randy pose while carrying out the stock cars. After 4 years, they have been retired and are being replaced with super stock cars due to a rule change...again.



9th grader, Jamie Knutti, Soap Box Derby alum maintains proper form while waiting to race down the track at the STEM Gravity Racing Challenge last year. For details on building the cars and participating in the optional contests click below.

[Soap Box Derby Building](#)



Jude examines a car designed to transport materials vertically and horizontally for the project "The Survival Challenge".



Mason was all smiles creating circuits in the *Magic of Electronics* unit.



Colin sands the axles to decrease friction on his team's Soap Box Derby car.



Nick, Jack and Zack dressed up in the proper attire worn in the steel factories that put Youngstown on the map.



Students have begun building for the Soap Box Derby.

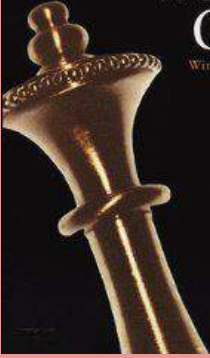
7th Grade

- ★ This month in science students are learning about biomes of the world. They began by looking into key characteristics for each type of biome. Then, students teams selected one biome they wanted to focus their research on for the biome project. Teams are writing informational papers, as well as creating visuals for their chosen biomes. Methods of creating the visuals were up to each group. Ideas include creating scenes in boxes and documentaries. Each group will be presenting their biomes at the conclusion of the project.
- ★ Planning for the Soap Box Derby has begun. Students are organized into teams as they are designing their team name and logo. Every team member is given a job. Students have started creating infomercials, making press releases and creating websites for their teams. They are documenting their process as well. The building of the three cars has begun for the

ELLEN RASKIN

**THE
WESTING
GAME**

Winner of the Newbery Medal



Bonus:
Material
Inside!

7th graders recently finished their second novel of the year, *The Westing Game*, by Ellen Raskin.

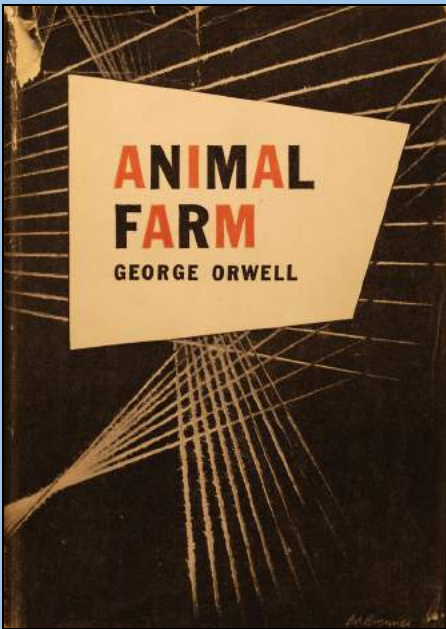
upcoming races on May 20th in Akron. Check out the class website amsstem.com for updates and building progress.

- ★ Students are “Moving Straight Ahead” in math as they explore linear relationships. The focus is on understanding linear relationships to solve real-world math problems and solving increasingly complex equations.

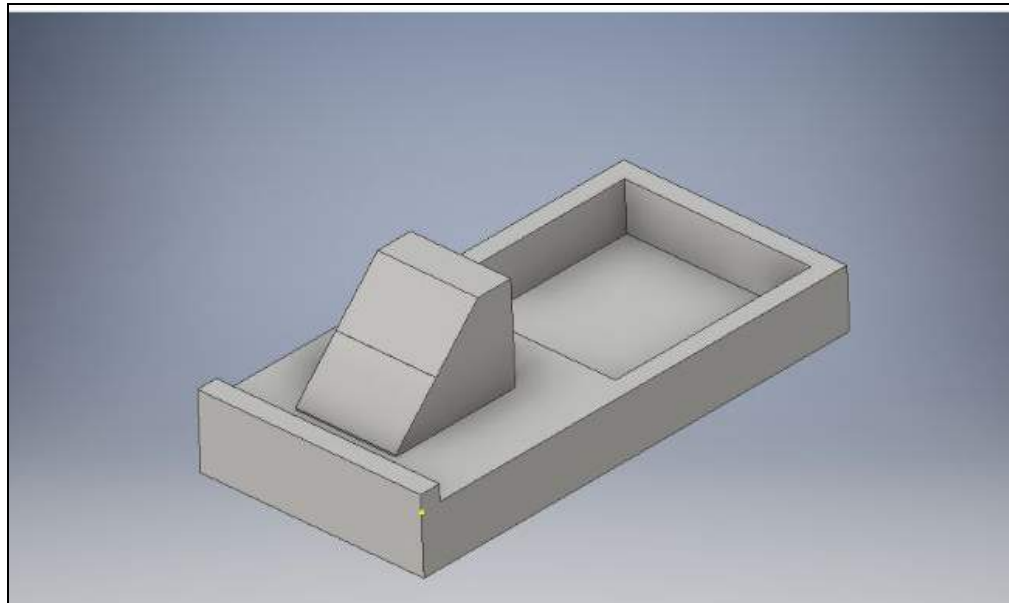


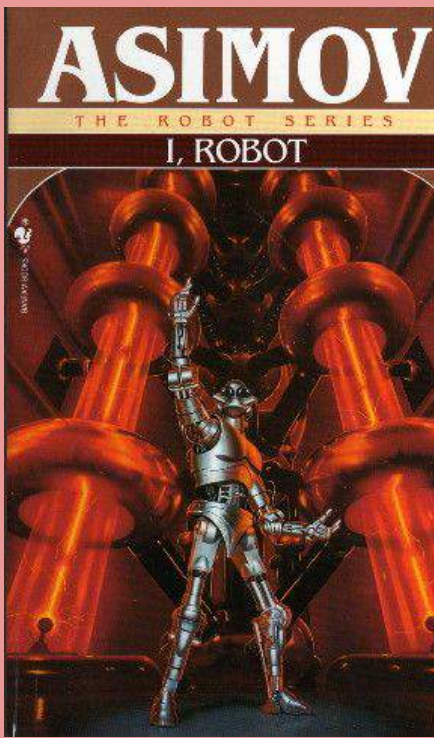
Driver Isabella poses with her pit crew, Colin, Randy, and Robert along with Mr. Terrigno while preparing for the super stock division of the Soap Box Derby.

**ANIMAL
FARM**
GEORGE ORWELL

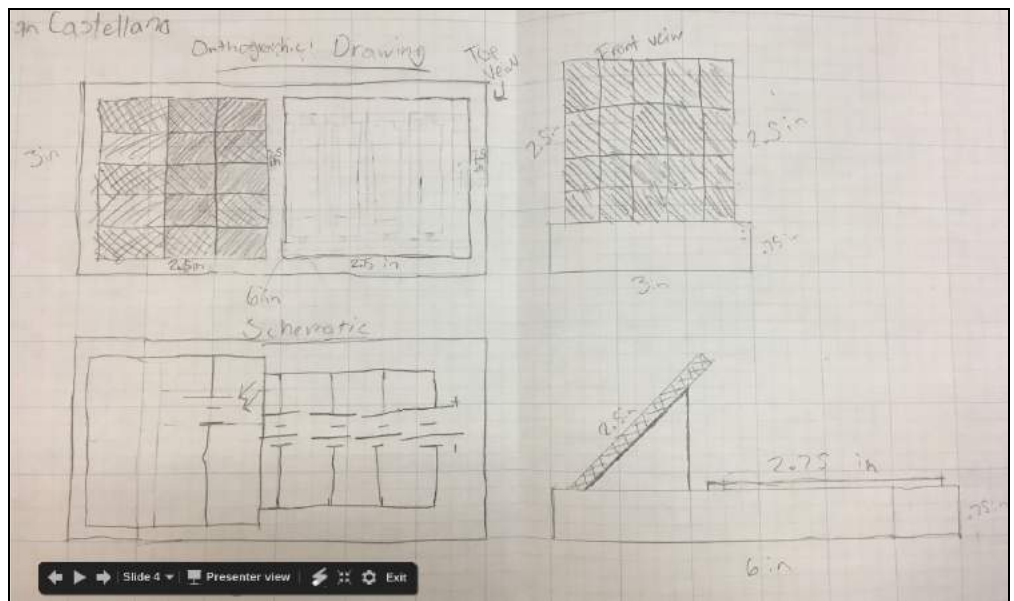


8th graders have finished reading *Animal Farm*, by George Orwell.





8th grade students began reading *I, Robot* by Isaac Asimov. This book aligns well with the *Automation & Robotics* unit embedded in the STEM Program.



Parts of Ryan and Joe's *Magic of Electrons* final project is pictured above. Students were to invent something that will make life easier. Their solar-powered battery pack is complete with orthographic sketches, CAD designs, schematic, and an essay.

8th Grade

- ★ We finished the final *Magic of Electrons* final project by inventing or innovating something that will make life easier for people today. The only constraint is that it contains one or more electrical circuits and show how it works via a detailed schematic using proper symbols. It included a CAD drawing, orthographic designs, schematic and an essay.
- ★ The students will be learning how to measure, scale, estimate materials, design floor plans on paper as well as using professional architectural software, and also building a 3D scaled model of a building in class using scaled dimensional lumber. ****If you can send in a tape measure with your child for class use that would help out.
- ★ Students are learning about evolution and reproduction in science. Students worked in groups to research the evolution of organisms. Their research included characteristics that have helped the organisms to survive and causes for evolution to the organisms. The class is currently learning about reproduction, which will lead us into genetics at the beginning of February.

**"Education
is the mOst
POwErful Weapon
wHiCh you can
use to ChAnge
the World."**

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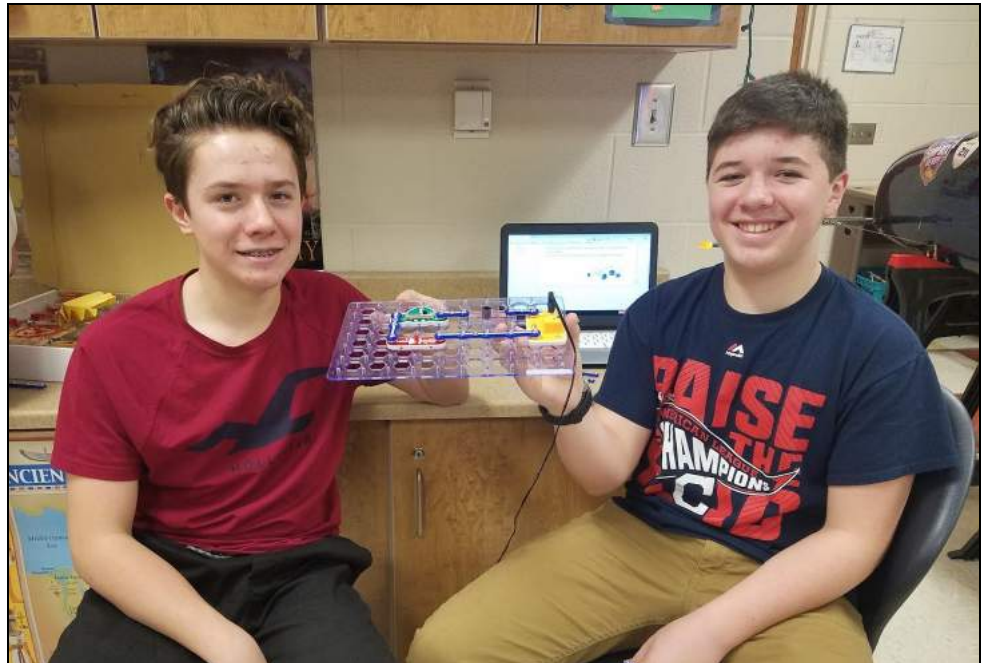
Tuesday, March 7th the AMS and Fitch STEM students will be hosting STEM Day at AIS. ALL 4th graders will receive hands on, STEM lessons from experienced STEM students.

Educating
the mind
without
educating the
heart is no
education
at all.
— Aristotle

curiano.com



Students were being silly while trying to “steal” a “steelworkers’ keys at the Youngstown Historical Center of Labor and Industry.



Zane and Connor show off their circuit they designed using a “series” of switches, capacitors, and resistors.



While visiting the Historical Museum of Labor and Industry students learned about the process of making steel.



Students got see a working model train of the Youngstown area complete with local steel factories, including Youngstown Sheet & Tube and Republic Steel.



Austintown Middle School STEM

Soap Box Derby

Team Sponsorship Form



The 7th and 8th Grade Austintown Middle School STEM class will be participating in the 2017 STEM Soap Box Derby Gravity Racing Challenge (GRC) at Derby Downs in Akron Ohio. The GRC is an extension of learning that allows us to apply the core fundamentals of Science, Technology, Engineering, and Math while bringing the classroom to the track. The money we raise is essential for funding the cars, shirts, travel, and registration fees for our six teams.

Commitment Level	Recognition
Friend of the Team \$20-\$49	Your Name/Company will be displayed on our team banner as well as our class website.
Contributor \$50-\$199	Your Name/Company will be displayed on our team banner, team shirts, and class website.
Sponsor \$200-\$499+	Your Name/Company will be displayed (Small to Medium) on the race car as well as our team banner, team shirts, and class website.
Primary Car Sponsor \$500+	Your Name/Company will be displayed (Large) on the race car as well as our team banner, team shirts, and class website.

I wish to sponsor the Austintown Middle School STEM Gravity Racing Soap Box Derby team for the 2017 competition. I am enclosing the sponsorship fee of \$_____ for the level of _____.

Business/Supporter Name: _____

Contact Phone: _____

Email: _____

Address: _____

City: _____ State: _____ Zip: _____

Contact Name: _____

Signature: _____

The International Soap Box Derby is hosting the Gravity Racing Challenge race Sat. May 20 at the Derby Downs Track. We hope to see you there! Keep up with our progress by visiting our class website: AMSSTEM.COM

*More information call: 330-797-3900 ext. 2230.

Make checks payable to:

Austintown School District-STEM

Send forms to:

**Attn: A.J. Ginnetti, Board Office
Austintown Local Schools
700 S. Raccoon Rd.
Austintown, OH 44515**

Contact information:

Jason Freudenberg- STEM Teacher

Email: jfreudenberg@austintownschoools.org

Doug Eisenbraun- STEM Teacher

Email: deisenbraun@austintownschoools.org

Danielle Chine- K-12 STEM Instructional Coach

Email: dchine@austintownschoools.org

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[Austintown STEM Website](#)

[AMS STEM Student Website](#)