



Austintown Fitch High School

STEM Newsletter



March 2018

"The ones who are crazy enough to think they can change the world, are the ones that do."
-Steve Jobs
(1955-2011)

Calendar

March 26-April 2- Spring Break

Thurs. April 12- ELA Part 1
(9th and 10th)

Fri. April 13- ELA Part 2 (9th
and 10th)

Mon. April 23- Algebra 1 and
Geometry Part 1

Tues. April 24- Algebra 1 and
Geometry Part 2

Wed. April 25- American World
History 2 and Govt Part 1

Thurs. April 26- American
World 2 and Govt Part 2

Mon. April 30- Biology Part 1

Tues. May 1- Biology Part 2

Tues. May 8- STEM Showcase
at AMS Cafetorium 6- 8 pm

Tues. May 29- Last day for
students



Larry, Chris, Randy, Omaree, and Ryan (from left) were all smiles while participating in STEM Day at AIS on March 7th. Fitch STEM students taught their younger peers valuable STEM lessons.

Greetings STEM Families,

APPLY NOW

Applications for the Fitch STEM Program are being accepted for the 2018-2019 school year. The link to access the application is below. Seats are limited!

[Fitch STEM Application Form](#)
[STEM Program's Website](#)

This is the Fitch High School STEM Newsletter for March. STEM is in full swing with many projects and activities on the books. On March 6th and 7th the Fitch STEM students held STEM Day at Austintown Intermediate School. It was during this time that the AMS and Fitch STEM students taught 3rd and 5th grade students many STEM lessons and hands on demonstrations. Students learned about programming, robotics, electricity, 3D printing, windmill design, and more! It was a fun and exciting day for all. Thank you to the PTA for organizing this event.

Students will begin state AIR testing with 9th and 10th grade students taking select tests such as English/Language Arts, Biology, History, Algebra, and Geometry. They also began scheduling and planning for next school year. We are currently taking applications for the 2018-2019 Fitch STEM Program. [Click here](#) for more information and to access the STEM application form. Apply today as seats are very limited!

Austintown Fitch High School
STEM Program
Pathway



2018-2019

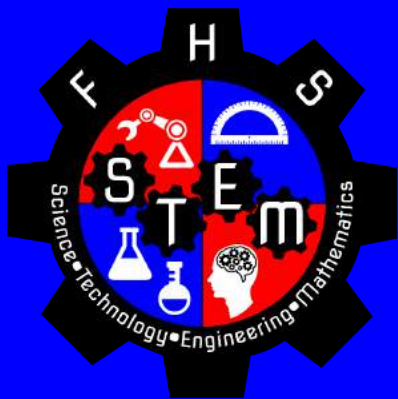


"Ask not what I want to be
when I grow up, but what
problem do I want to solve!"

[Click here](#) to access an
informational presentation
regarding the Fitch STEM
Pathway Program.



Victor demonstrates how to use a motion detector to an AIS student during STEM Day on March 7th.



Jared Godwin submitted this
photo of Chad at MAPS Air
Museum as part of the STEM
photo contest. Jared won lunch!



Tyler, Zach, Josh, and Jamie (from left) toured MAPS Air Museum on March 15th and sat in the cockpit of many retired military aircraft. There is a heavy amount of irony watching students "play" with old missiles and warcraft that if they were born during a different era they would be behind the controls of such weapons. This was a very educational and emotional field trip and one of the STEM Program's most anticipated experiences.

Click here to take a brief survey regarding you and your child's STEM experience. [Click here to take the survey!](#)



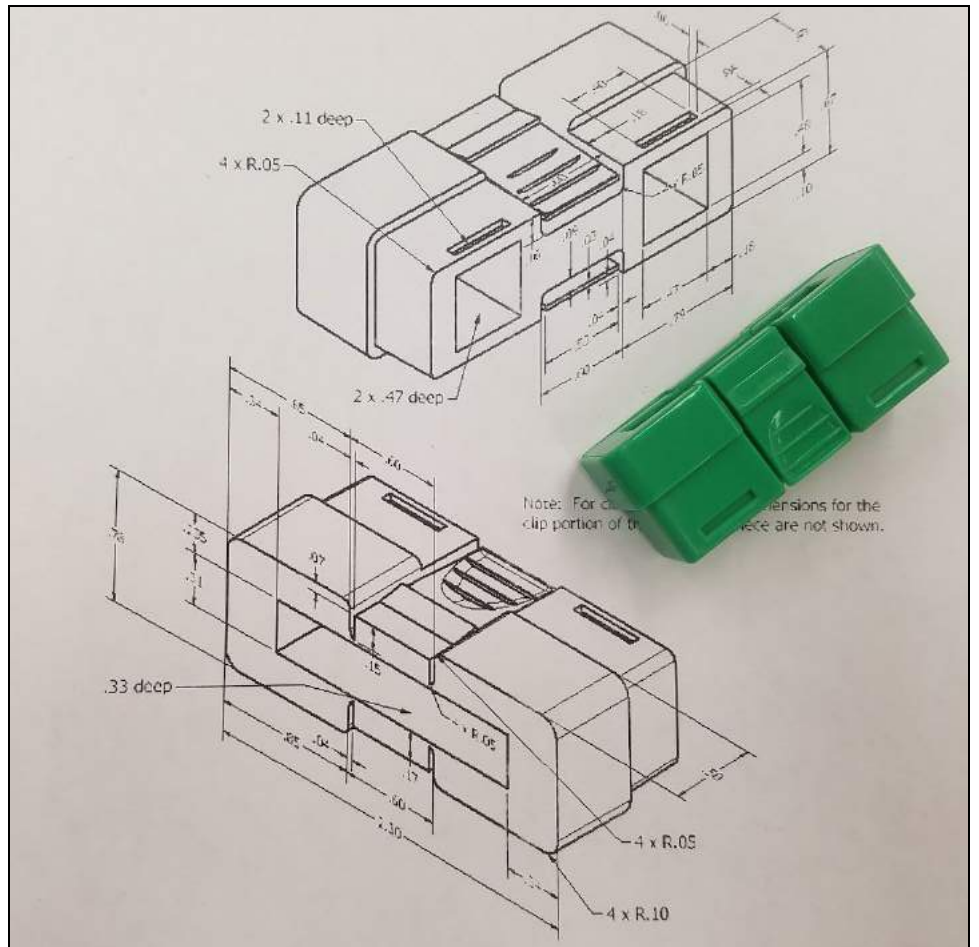
Julia submitted this photo she took at MAPS Air Museum of the cockpit of a retired WWII military aircraft. She received 2nd place in the STEM Photo Contest.



Josh gains a first person view and experience gaining the controls of military aircraft at MAPS Air Museum.



Cedric assists a student at AIS with the using “pick and place” programming to control a student-built model robotic arm during STEM Day at AIS.



Schematic drawings of a student's Automoblox project on reverse engineering in Introduction to Engineering Design.

9th Grade

- ★ Students are creating arenas designed from events that are “spin offs” from the book they are reading titled, Fire and Flood by Victoria Scott. This crossover project involves students working in groups of four using AutoDesk to design their arenas using theme and aspects from the book. This is a great example of using interdisciplinary skills in the STEM Program.
- ★ Students are expanding their skills using the modeling software AutoDesk Inventor by creating assemblies using the loft, sweep, revolve, emboss, hole, fillet and chamfer tools.



A unknown STEM student captured a precious moment of Julia at MAPS Air Museum.



Squire points out the critical aspects of bridge building to an AIS student during STEM Day on March 7th.



Hannah, Tre, Sam, Isaac, and Robert (from left) won the Design Award at the MCCTC Vex League Play. They secured a seat at the VEX Robotics State Championship in Columbus on March 9th and 10th. They did an amazing job for their first time competing at State. Congratulations Cosmic Guardians!



B.J. enthusiastically promotes his 3D Printing & AutoCAD booth during STEM Days at AIS.



An AIS student shook hands with a student-built and controlled robot during STEM Day at AIS. This event was organized and sponsored by the AIS PTA.



AIS students Charlotte and Julianna were in awe when they got the model robotic arm to move during STEM Day at AIS.

10th Grade

- ★ Students finished reading The Immortal Life of Henrietta Lacks and completed a cross curricular reading log based off of science, ethics, culture and history.
- ★ Principles of Engineering students are using concepts of materials analysis to create recycled projects by “upcycling” products and repurposing. Students have begun focusing on material properties by investigating the manufacturing process used to create components utilized in prior units focusing on product analysis.



Students were all smiles at MAPS Air Museum on March 15th. They got first hand experience sitting behind the controls of many retired military aircraft and learned about the rich aviation history of Northeast Ohio.



Erica assisted students with controlling a VEX Robot during STEM Day at AIS.



Sam demonstrated to AIS students on STEM Day how to control a VEX robot. He also talked about his experience competing at State competition in Columbus on March 9th and 10th.



Robert, a senior, demonstrated to his younger STEM peers how to build and launch a rocket in Principles of Engineering class.

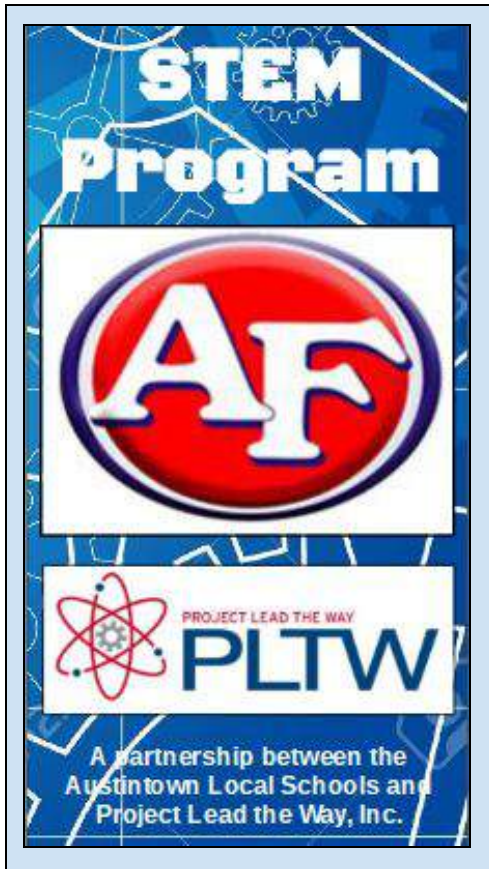
11th Grade

- ★ Computer Science 1 students are creating internet “shopping carts” by designing a program using the Python programming language to purchase items online. Their program utilizes multiple loops and commands to create a total for their purchased items.
- ★ The students read, The Help by Kathryn Stockett detailing an African American maid’s experience working with a white family during the 1960s Civil Rights Movement.



**TELL US WHAT
YOU THINK**

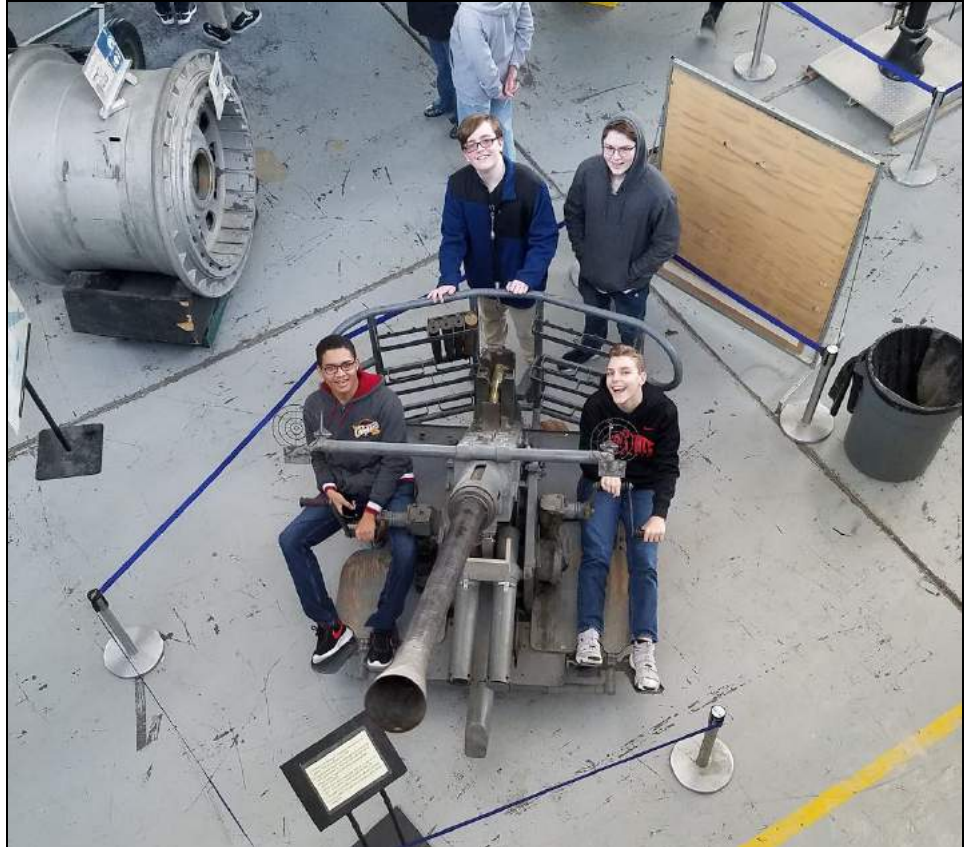
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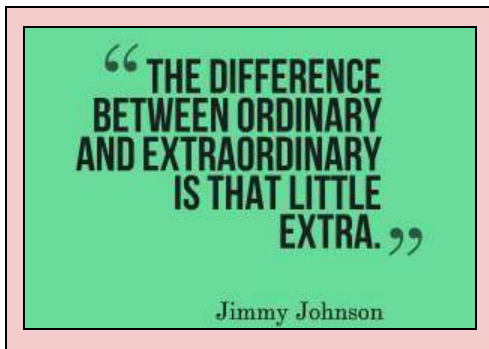
Students got to tour WWI, WWII, and Vietnam and other military aircraft at MAPS.

12th Grade

- ★ Engineering Design & Development students are completing Elements E & F in their portfolio. Element E entails testing decisions and analysis of their trial and error testing of their designs. While Element F involves students explaining obstacles and how they were addressed in a realistic way. Students also provided a written context of all artifacts.



Freshmen STEM students got to sit behind the controls of retired military equipment on the field trip to MAPS Air Museum.



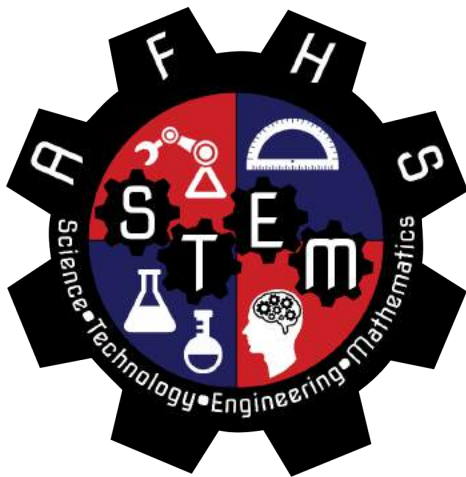
Ted and Tyler rebuilt the augmented reality sandbox to strengthen the framework. Then they troubleshooted the projector and software to ensure a properly functioning sandbox.



Jackson and Robert made us proud of STEM while being honored at the National Honor Society inauguration on March 23rd.



Daniel, Jackson, and Joe (both current and past STEM students) were recognized during the National Honors Society assembly on March 23rd.



Nick proudly posed with students from AIS during STEM Day on March 7th. He demonstrated how to make graphs of temperature and time using Vernier probes.

Austintown Fitch High School STEM Program Pathway



2018-2019



*"Ask not what I want to be
when I grow up, but what
problem do I want to solve!"*

[Click here](#) to access an informational presentation regarding the Fitch STEM Pathway Program.

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[Austintown STEM Website](#)

[AMS STEM Student Website](#)

[Fitch STEM Student Website](#)



