

# AMS STEM *October Parent Update*



Report cards were sent home for all students on Friday, Oct. 31st!

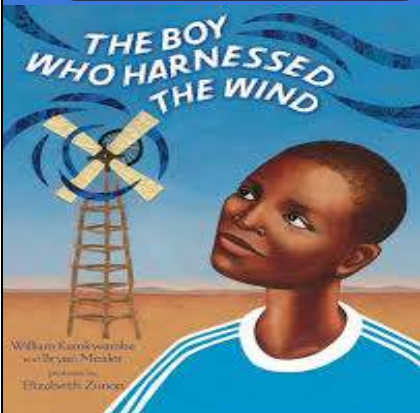


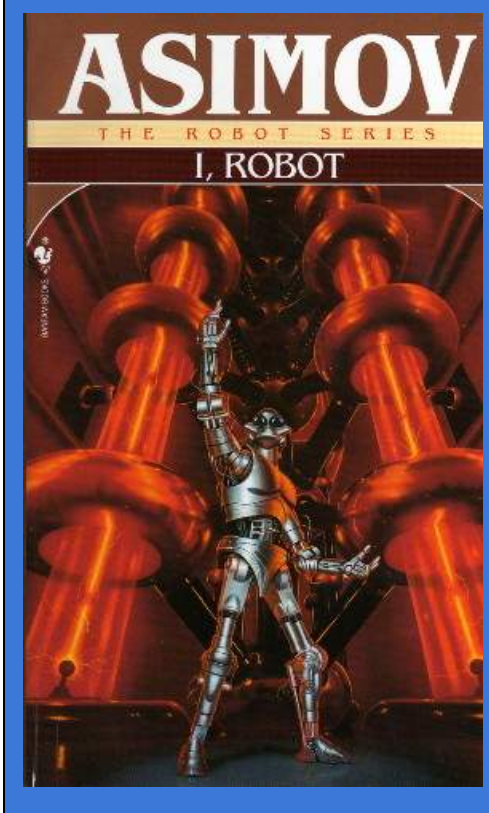
Check out coursework and assignments on Schoology. Your child can log you in. Ask about the phone app!



## Upcoming Events

- On **Fri. Nov. 14th**, we will be taking our second field trip of the year to NAMII, the National Additive Manufacturing Innovation Institute and the Historical Center of Labor and Industry both in downtown Youngstown. Afterwards, students will have their choice of Hot Heads or Jimmy John's for lunch. It is going to be an engaging and fun-filled day for STEM! Permission slips were sent home last week and are due back on **Fri. Nov. 7th**.
- Parent/Teacher conferences will be **Tues. Nov. 25** from 2:45-8:45 pm. Soon you will receive an email from Doodle.com to schedule a time slot. This is the same process as when you scheduled an interview for STEM last summer.





## Guest Speaker

- Thank you to Dr. Stephen Schoonmaker from the University of Ouachitas in Arkansas for coming and speaking to the students this month. He is an engineer specializing in the 3D printing of prosthetic limbs and the creator of the Robohand.

## Jr. STEM Meeting

- The first Jr. STEM Meeting was on Wed. Oct. 22nd. Many 6th grade students stayed after school to learn about some of the STEM projects and activities done in the STEM program. The students did a great job teaching them all of these concepts! It was a major success!



Just a peak of some of the 6th graders in Jr. STEM learning the basics of AutoCAD from our students.

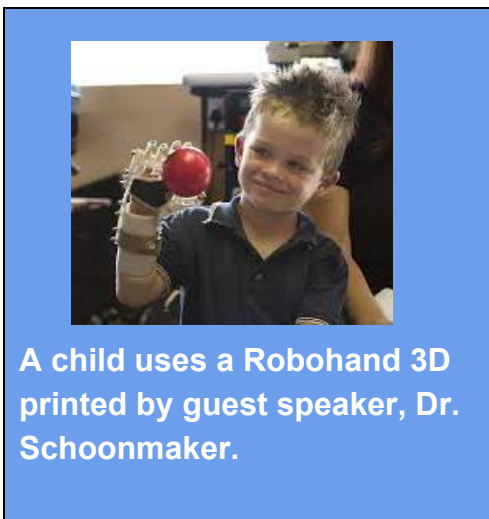
## Reading in STEM:

The 7th and 8th graders have both started new novels. The 7th grade students are starting *The Boy Who Harnessed the Wind*, an inspiring story about a boy in Malawi who brought electricity to his town through passion and ingenuity.

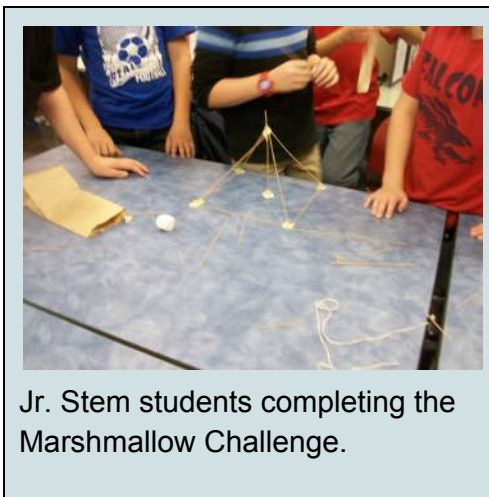
The 8th grade students are starting Isaac Asimov's *iRobot* as we get back to our unit on Robotics.

## 7th Grade

- Students began designing their ancient playgrounds in Inventor and will 3D print and prototype various parts of their design. Some examples, are Viking ships and Egyptian pyramids redesigned as playgrounds.



A child uses a Robohand 3D printed by guest speaker, Dr. Schoonmaker.



Jr. Stem students completing the Marshmallow Challenge.



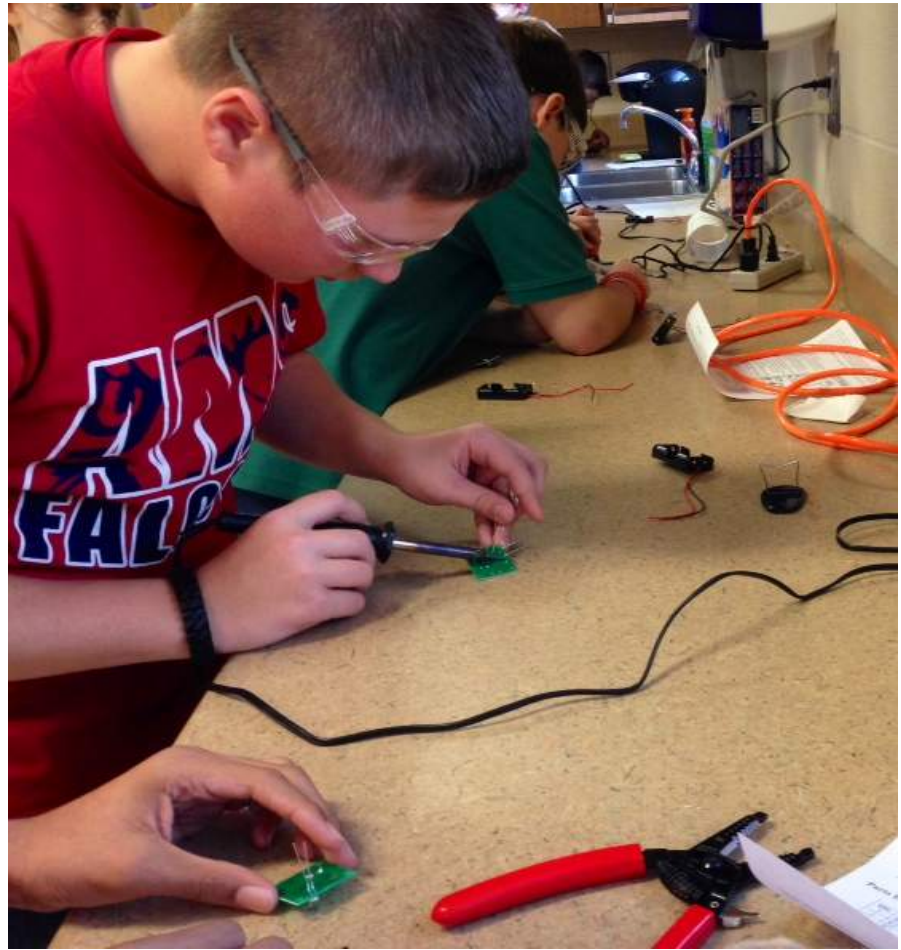
Sydney Ferguson makes her presentation board displaying her Ancient Civilization Playground Design.

- Students wrote detailed essays and stories chronicling the design process of their ancient culture and playground.
- In Math we started a unit on Similarity, Scale, and Ratios which correlates well with our cumulative STEM project which involves creating scaled drawing of their playground designs.
- All students are currently using Google Docs to create presentations and documents. They are able to collaborate with each other on working documents. Ask them and they will show you how!

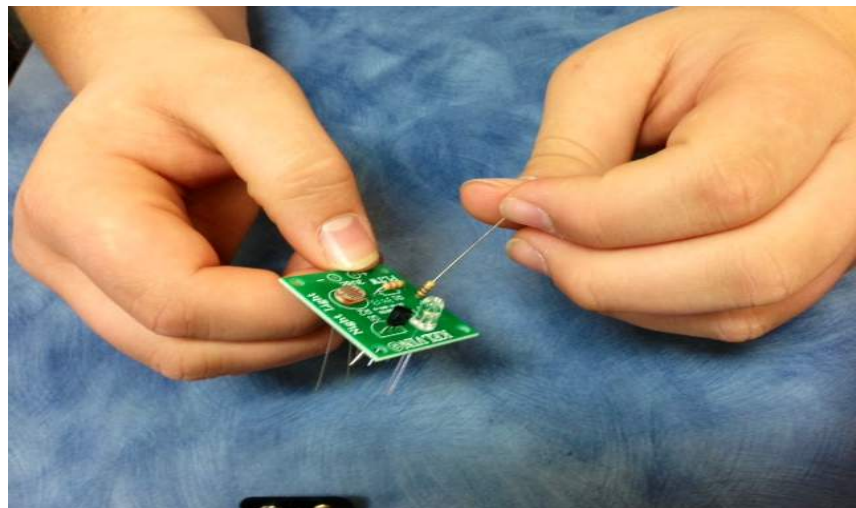


Isaac Robbins designing his Ancient Viking Playground using Inventor.

## 8th Grade



- The eighth graders are wrapping up their unit, Magic of Electrons, by creating their own circuit board night light along with a final cumulative project.
- Night Light: The students just finished utilizing an LED, transistor, photocell, and resistors to create and solder a working nightlight on a real circuit board.



- Final project: For the finale, the 8th graders will be inventing or innovating a design that they will produce a working drawing with 3 different views, CAD design file, circuit schematic, and essay to explain it all. The projects are due this week, and we have been really impressed with some of the ideas and progress.



- Next, the 8th graders will be getting back to their VEX robotic design projects that we started earlier in the year.

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