

AMS STEM *January Parent Update*



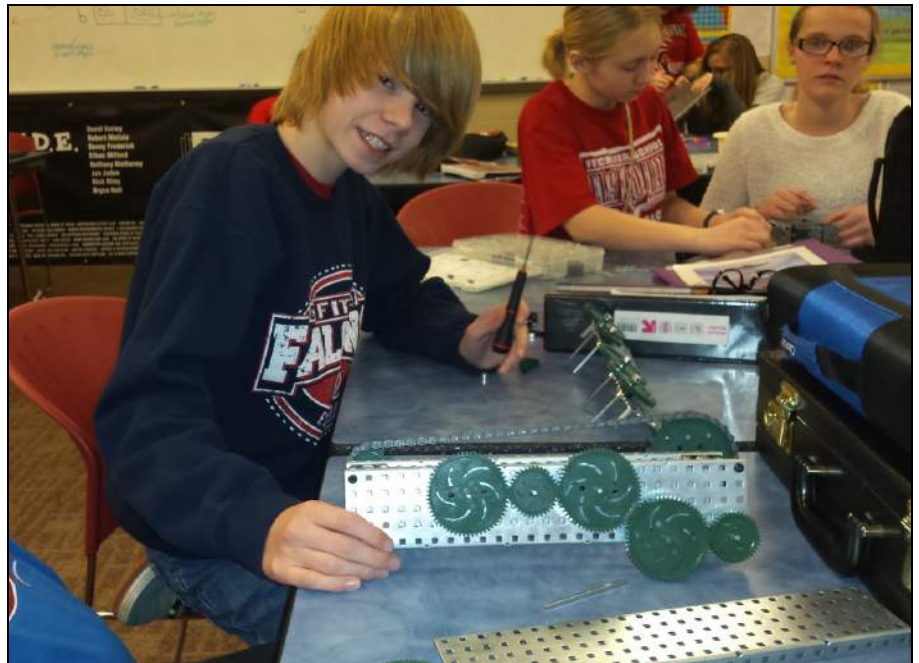
Parent Teacher Conferences are on Feb. 12. They are first come, first serve. A link from Doodle was sent.



Students are still accepting sponsorship forms for the Soap Box Derby STEM Gravity Racing Challenge.



Students can earn a STEM pen which is also a stylus and light for overcoming challenges and hard work.
Has your child earned their pen?



Caleb shows off a basic gear train and chain drive he built to determine gear ratio and discover advantages to using simple machines.

Hi 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. Please read below...

PARCC Testing

Students will begin PARCC (Partnership for Assessment of Readiness for College and Careers) testing the week of February 16th. During that week, 7th and 8th graders will have three days of testing in Language Arts. The week of March 1st students will have



Students will be taking PARCC assessments starting the week of February 16th using their Chromebook or classroom laptop. This series of assessments are very rigorous and writing intensive. Just another day in STEM for them...

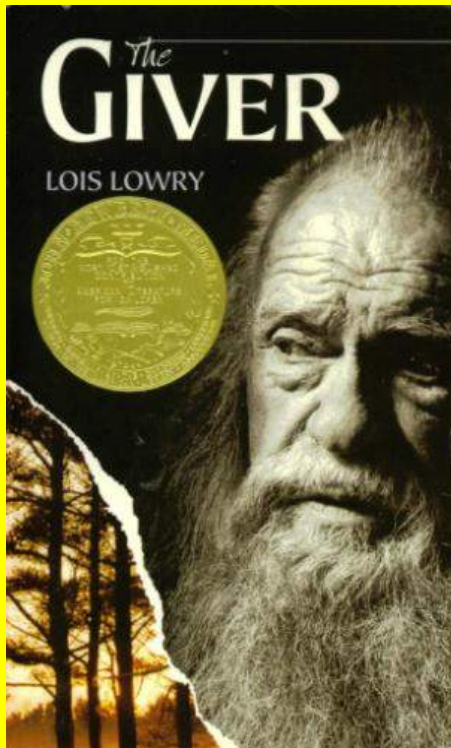
two days of testing in Math. The 8th graders only, will test one day in early March in Science. These are mid-year assessments. End of year assessments in English and Math will start in May. All testing will be done electronically using student Chromebooks. Please see the "PARCC" folder in Schoology to review test details, rubrics, and practice questions with your child! You can also go to the following link to see practice test and sample questions. These are new tests that encompass a variety of standards and skills the previous OAA did not, so this next month will bring new challenges for all of us.

<http://www.parcconline.org/>

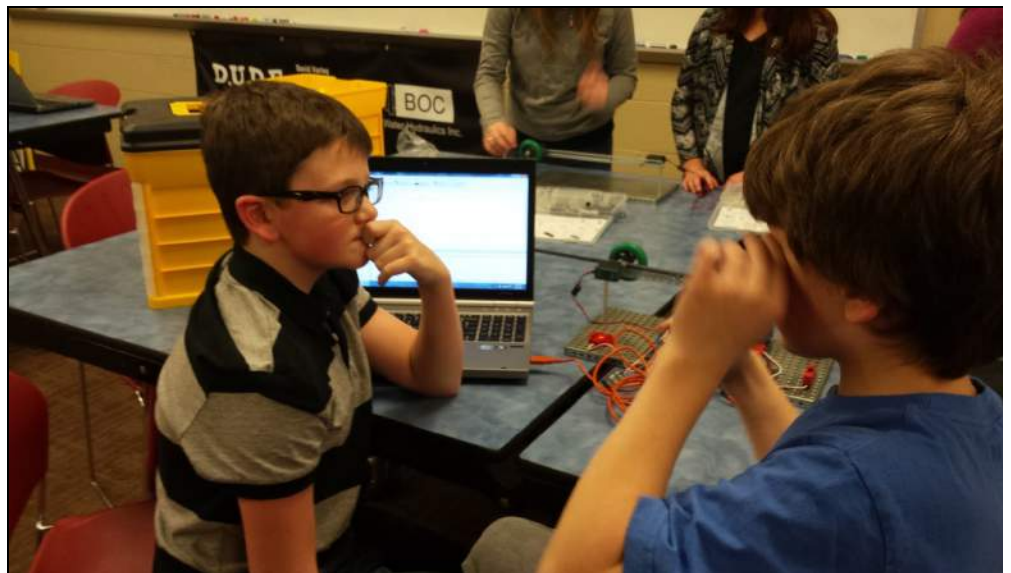
We are tirelessly trying to best prepare these students for these new assessments. PARCC tests require more time and a higher level of thinking from students. This is exciting because it is a better measure of student skill and learning. The week prior to testing we will send an email detailing tips and strategies to encourage and motivate your child through the testing process. We are all in this together!

Parent-Teacher Conferences

Parent-teacher conferences will take place on Thursday, February 12th. A link from Doodle.com was sent on Jan. 29th. Conferences are on a first come, first serve basis as we cannot add another day of conferences if they fill up. We look forward to meeting with you and discussing your child's progress.



The 8th graders have started reading *The Giver* by Lois Lowry. This Dystopian novel follows the story of a young boy in strange futuristic community who has been chosen for a special role in their protected society.



Dylan listens intently to an interested 6th grader who attended the Junior STEM meeting on Jan. 15th.

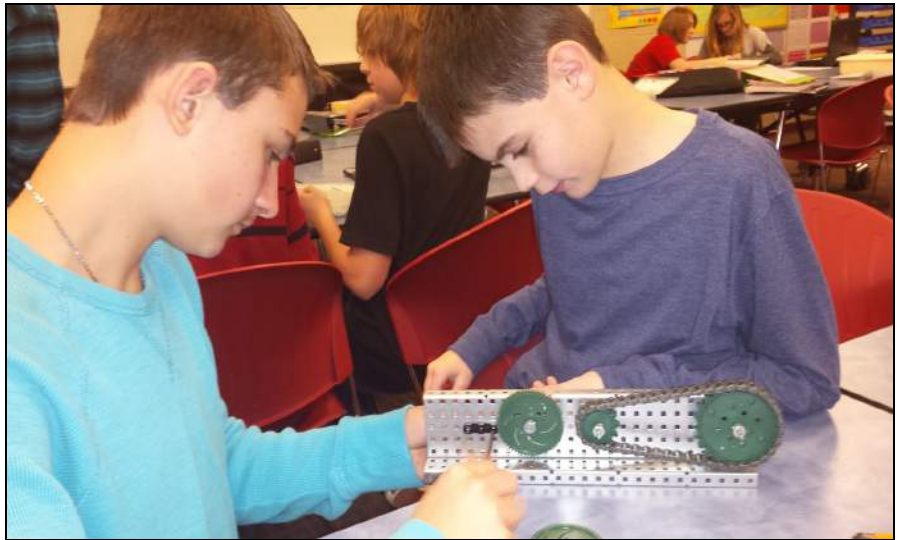
7th Grade

- ★ Students started the Automation & Robotics unit and have been working hard building various types of simple machines and mechanisms and developing ways of manipulating the speed, torque and direction of force. Students use Vex kits, which are

similar to erector sets. They use this new found knowledge to build more complex machines to succeed in what we call, "The Survival Challenge". Will you survive the apocalypse?

- ★ This month students will put motors and sensors on their machines and begin programming using a program called RobotC which is similar to natural language programming. Students explore the conversion of mechanical to electrical energy and vice versa.
- ★ Students are "Moving Straight Ahead" in math as they explore linear relationships. The focus is on understanding proportional relationships to solve real-world math problems and solving increasingly complex equations.
- ★ 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. The building of the cars will begin after PARCC assessments.

The 7th graders have just started a STEM favorite, *Life as We Knew It*, by Susan B Pfeffer. This is the first of 3 novels we will read in the *Last Survivor* series that takes readers on a firsthand journey through the end of the world...as they knew it.



Jeremy and Tyler figure out a way to put two mechanisms on one input.



There is no doubt Robbie, Geno, and Tanner will survive the apocalypse with this vehicle that can simulate pumping water, cutting wood, and grinding grain all on

one manual input.



Carissa, Jacob and Sydney (not shown) won the Survival Challenge for their inventive machine and presentation.



Carissa and Destiny are hard at work determining how to construct a universal joint.

8th Grade



Students assemble houses out of scaled dimensional lumber.

- The 8th graders have been working hard to prepare for the three-part Language Arts portion of the PARCC coming up in a couple of weeks. We are approaching this confidently but cautiously. Each of these tests requires a full essay to be written on the spot, so we have been practicing ways to abbreviate our writing process to meet these demands. We will be fine...right?
- We have also starting reading *The Giver*, and now all of the students are reporting strange dreams...
- In STEM, we have mastered measuring, scaling, calculating, and drawing floor plans. Now, we are putting these skills to the test by building real houses in class with scaled dimensional lumber. If your child asked to borrow a hammer to bring to class, that is why.



- Also, we have started creating floor plans on the computer using architectural software. All of these skills will be utilized in

the final project where the students will be given a budget to buy a plot of land, design, budget, and build a house creating detailed paper and digital floor plans of each level.



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