



PLTW Advisory Team Meeting Minutes

Thursday, August 24th, 2017 @ 5:00 in SMCHS STEM Room 132

Attendees: Linda Meier, Pat Hickey, Phil Kerwin, Sven Bugge, Jill Ahles, Helen Englebert, KarieAnn Zeinert, Emilie Boots, Greg Cheslock, Jeanne Lee, Molly Griffin, and John Mislinski

- Greeting/Opening Prayer: Phil
- Review of Events Last Spring/Summer (10 Minutes)
 - SMCS STEM Saturday Event—recap of the day. Audience was mostly comprised by elementary and middle school students. Budget was \$1000.00 and the event came in just under budget. The STEM Saturday committee compiled notes after the event to aid in planning this year's event.
 - PLTW Week—STEM questions were asked during daily announcements. Students who won received t-shirts that made sound or lit up. Well received by elementary and middle school students. Will rethink activities for high school.
 - STEM Fly-in—aviation club hosted the event. Drones, rockets, elastic launchers, drone obstacle course were highlighted. A professional drone operator (age 17☺) came to the fly-in and spoke to the students which was inspirational for them. High school VEX students helped with the event as well. Greg Cheslock took some of the students to EAA the following week for an excellent learning and follow-up experience. Looking to set a date for next summer prior to EAA.
- Review of PLTW in the schools last year (5 minutes)
 - 4th and 5th grade Launch covered two modules last year: Grade 4—Energy Collision and Energy Conversion; Grade 5—Robotics & Automation, Infection Detection
 - 7th and 8th grade Gateway App Creator
- Review PLTW Summer Training (5 Minutes)
 - Emilie Boots and Amy Sampe were trained for Gateway modules at MSOE
- Review of plan for PLTW in Schools 2017-2018 (5 Minutes)
 - Ongoing Programs—continue 4th and 5th grade Launch modules this year
 - New programs—2nd and 3rd grade modules will add two modules this year. Grade 2—Materials Science: Properties of Matter and The Changing Earth, Grade 3—Stability & Flight, Stability and Motions: Forces & Interactions
 - Grades 4 and 5 will continue with modules taught last year
 - 6th grade Gateway Flight and Space; 7th grade Gateway Medical Detectives 7th and 8th grade will continue with Gateway Apps Creator
 - 2018-19—K-1 will be added next year. High school modules will be added as well.
 - Future reference: John Hogerty's brother is an attorney with PLTW



- Plan for PLTW in Schools in 2018-2019 (Quick)
 - High School Program-- High school modules will be planned by Jill, Pat Batey, and Pamela Stark
- PLTW Advisory Team 2017-2018 Goals (25 Minutes)
 - Are we okay being PLTW/STEM?
 - VEX Robotics
 - Stem Saturday—March 24, 2018
 - PLTW Week—April
 - Summer Fly-In—Greg will look into setting a date (see above)
 - John M. is employed by Jacob's Engineering has multiple resources for speakers, and other enrichment
 - Lecture Series—discussed opportunities for speakers related to specific modules. Speakers could be engineers, medical professional, skills/trades workers
 - Sven B. will look into a speaker for the 7/8 computer science students—follow-up with a field trip?
 - Field Trips—can we plan field trips and reach out for corporate backing for each module?
 - Corporate Outreach—working with corporations for financial backing, experts in the field, speakers, etc. is advisable moving forward.
 - Other—are we communicating PLTW well enough to donors? SMCS PLTW link on website is a good addition.
 - Two areas of focus—speakers for PLTW modules, speakers for STEM Saturday
- **Action: review course descriptions (listed below) and suggest speakers and field trips for modules**
- Next Meeting – Thursday, October 5th, 2017 @ 5:00 p.m. in SMCHS STEM Room 132

SMCS PLTW course descriptions for each grade level:

Grade 2

Materials Science: Properties of Matter

Students explore materials science and devise a way to keep popsicles cold – without a cooler.

The Changing Earth

Students explore how the surface of the Earth is always changing and design solutions for a fictional community threatened by a landslide.

Grade 3

Stability and Motion: Science of Flight

Students learn about the forces involved in flight and design a solution to deliver aid supplies via an aircraft.

Stability and Motion: Forces and Interactions

Students explore simple machines such as wheel and axles, levers, the inclined plane, and more and then use what they know to rescue a trapped zoo animal.

Grade 4

Energy: Collisions

Students investigate how mechanisms change energy by transferring direction, speed, type of movement, and force and then use what they know to design a car safety belt.

Energy: Conversion

Students learn how energy can be converted to meet a human need or want and then develop solutions to move donated food from a truck to a food pantry.

Grade 5

Robotics and Automation

Students explore the ways robots are used in today's world and then design a mobile robot that can remove hazardous materials from a disaster site.

Infection: Detection

Students explore the transmission of infection and run an experiment to help find ways to prevent the spread of illness.

Grade 6

Flight and Space

The exciting world of aerospace comes alive through Flight and Space. Students explore the science behind aeronautics and use their knowledge to design, build, and test an airfoil.

App Creators (cycles through 7th and 8th grade due to scheduling)

This unit will expose students to computer science as a means of computationally analyzing and developing solutions to authentic problems through mobile app development, and will convey the positive impact of the application of computer science to other disciplines and to society.



Grade 7

Medical Detectives

Students play the role of real-life medical detectives as they analyze genetic testing results to diagnose disease and study DNA evidence found at a “crime scene.” They solve medical mysteries through hands-on projects and labs, investigate how to measure and interpret vital signs, and learn how the systems of the human body work together to maintain health.

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