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Career Pathways Filling Up for Manufacturing

P-TECH Programs Begin a New School Year

AUBURN P-TECH CORNER

The Auburn P-TECH Program has now grown to include students in Grades 9-11. Students have started on activities that will increase their awareness of careers in manufacturing and help to develop problem-solving skills.

Problem-Solving Activity – Exploding Bags

The Auburn P-TECH program had a great time with this month's activity: exploding bags. Auburn students and their career coaches were given the task of creating enough carbon dioxide to pop a bag within 20 to 30 seconds with only baking soda, vinegar, and paper towels. The students and the career coaches had a good time experimenting with different ideas trying to get the bag to pop within the allotted time. The career coaches were complimented as fun and interesting to work with by the students. In addition, they learned that there's more than one way to get the bag to pop and although failure is not fun, it is a part of the learning experience. Great job, Auburn P-TECH!



P-TECH Students Tour the Manufacturing Floor of Magnus Precision

On November 2, the 9th grade Auburn P-TECH students visited Magnus Precision in Phelps, New York. Magnus produces precision machined parts, tooling, and components for industries including aerospace, medical, optics, and photonics. The students took a guided tour of the facility and got an up close view of what precision really means.

Once on the tour, the students observed machines making parts for some of the latest high-tech technologies. One of the things the students learned was that if a part was off by a strand of hair, the customer considered it a defective part and as much as 40 hours of work that was put into that part was lost. They also learned that due to the nature of the parts, material had to be carefully selected by suppliers and temperatures had to be carefully monitored as the parts were produced. A special thank you to our hosts Ron Wilson and David Arena.

SYRACUSE P-TECH CORNER

The Syracuse P-TECH Program has now grown to include students in Grades 9-12. The older students will be focusing on developing skills to allow them to participate in internships and employment.

First in-school activities of the 2017-2018 school year

Starting off the new school year, P-TECH Career Coaches participated in two activities with 9th and 10th grade students. On October 3rd, 19 professionals from various local businesses teamed up with students in small groups to work on a design challenge – building a Bucket Tower. Each team was provided with straws, tape, string, and a plastic cup. With these resources, the students and coaches had to construct a tower that could support the largest amount of pennies put in the cup, which was to be suspended from the tower by string. The students learned about teamwork, design, and problem-solving skills used in Engineering (and many other careers as well).

The sophomore P-TECH students brought their resumes to a Practice Interview Session held on November 1st at their school (Institute of Technology). Dressed professionally, 40 students were “interviewed” by two Human Resource Specialists/Career Coaches, responding to questions regarding their motivation, personal strengths/weaknesses, conflict resolution, goals, etc. Students learned how to present themselves to professionals, how to greet with a handshake, look directly at the interviewer when answering questions, and to ask questions of the interviewer regarding their company and/or position.

P-TECH sophomores visit Sunoco's Ethanol plant in Fulton

On November 2nd, 41 P-TECH students toured the ethanol plant and learned many interesting facts about the company and how the ethanol is produced. Students first had a presentation conducted by Laura Snepenger, Biotechnology professional for the company. Laura explained that Sunoco processes 17,763 truckloads of corn, or 22 million bushels, each year, which is 20% of the total NYS crop.



Students then toured part of the plant, including the lab, where they learned about the CO₂ produced as part of the manufacturing process. To take advantage of the CO₂ being produced by the Sunoco Ethanol Fulton plant, Linde North America, a member of The Linde Group, a world-leading gas and engineering company, built a 600 ton-per-day CO₂ plant on the site of the Sunoco Ethanol plant. The P-TECH students also viewed a sample of the corn oil, which is another by-product of ethanol and can be used for biodiesel production and domestic and exported feed. The ethanol produced by the plant is the Official Fuel of NASCAR®.

BE A HOST COMPANY-- CNY STEM JOB SHADOW DAY February 2, 2018

Companies are invited to participate in **CNY STEM Job Shadow Day**, facilitated by PEB. Over 300 high school students from the area are invited to visit local STEM companies like yours to shadow professionals. Job shadowing provides young people with a firsthand look at the skills and knowledge required to succeed in the workplace and get the connection between the classroom and the “real world.”

Benefits for Host Companies:

- The satisfaction that comes with mentoring a young person and introducing them to careers.
- Hosting reinforces the link between academic performance and career attainment.
- Provides an opportunity for companies who may not have been a host before to be aligned with this regional STEM event.

Register at: <https://www.surveygizmo.com/s3/3141805/CNY-STEM-Job-Shadow-Day-for-Companies>

Deadline is December 22, 2017.

MANUFACTURING CAREERS DAY BY THE NUMBERS

Students attending Manufacturing Careers Day at SRCTec or at Marquardt Switches in October completed evaluations about their experience. Over 400 students from 12 CNY high schools/programs participated. Here are some of the statistics:

List any particular careers you observed/learned about today that you found interesting. The top jobs selected were:

- Mechanical/Industrial/Chemical/Electrical Engineering and Project Manager/Manufacturing

Did today's visit / tour change your mind about your future career goals?

- Yes = 48%

Did it change your mind about (considering) Manufacturing careers?

- Yes = 44%

Overall, what did you think of today's event

- More Than Satisfactory / Excellent = 75%