P-TECH Students Face Off in Engineering Wars

May 14, 2021 (New Hartford, N.Y.) – The Pathways in Technology Early College High School (P-TECH) program at the Oneida-Herkimer-Madison (OHM) BOCES is charting new territory once again as its students participate in the first annual Engineering Wars competition, hosted by Syracuse-based C&S Companies.

“As you look at what’s transpired over the last year, the COVID-19 pandemic really highlighted the importance of engineering and manufacturing to our country and showed that we need to refocus, restore and reinvest in these areas going forward,” said John Trimble, President and CEO of C&S Companies.

The statewide engineering design challenge kicked off on May 3, when P-TECH students in grades 9 and 10 from across New York state met virtually with Trimble and Robert Leslie, Director of Career and Technical Education at the Syracuse City School District for a challenge presentation, and question and answer session. Trimble encouraged students to “think, act, follow instructions and be creative” throughout the challenge.

The Engineering Wars competition challenges students to use the skills and creativity they have learned through P-TECH to achieve an outcome by which they will be evaluated and scored. For the inaugural challenge, P-TECH students were tasked with working in groups of up to five to design, fabricate and operate a functional catapult using a limited set of provided materials. The challenge tested two elements -- distance and finesse, asking students to monitor how far their catapult could send a rubber ball projectile and if a receiver could catch an egg thrown by their catapult without breaking it.

From May 3-13, four groups of P-TECH OHM students worked together under the guidance of STEM teacher Tiffany Piatkowski to research, brainstorm, prototype, draw, optimize, fabricate and present their catapults. With building kits consisting only of PVC pipe, PVC fittings, pipe primer, pipe glue, rubber bands, duct tape and three rubber balls; the groups had to be resourceful in their catapult designs.

Throughout the two-week challenge, students received feedback on their design plans from P-TECH OHM business partners including Rick Short of Indium Corporation and P-TECH alumni Will Grant, and then on “work days,” they would further test and refine their designs.

Contact: Rebecca Neary • Public Relations Specialist
Phone: 315.793.8528 • E-mail: rneary@oneida-boces.org
“This has been a great opportunity for our students to collaborate in teams, work through the engineering design process, apply STEM content they’ve learned over the last two years and interact with business partners like C&S,” said Piatkowski. “The challenge has allowed our students to hone their problem-solving skills and professional skills while gaining hands-on work experience in the applications of STEM principles.”

At the conclusion of the Engineering Wars competition, the student groups will record themselves presenting their designs and testing their catapults. The videos will then be submitted and scored by judges from C&S Companies on their design concept and engineering drawings, construction quality, competition results and final presentation. The P-TECH OHM students and teachers are eagerly awaiting the results of the first annual Engineering Wars, which will be announced via Zoom on May 19.

P-TECH OHM offers a unique education for students beginning in grade nine. Working with multiple business and education partners, the program is designed to give students the skills and experiences they need in technology and manufacturing in order to compete in a global marketplace. Students earn a NYS Regent’s high school diploma and an associate degree from MVCC at no cost to their families, and will be the first in line for jobs with participating companies when they graduate.

The Oneida-Herkimer-Madison BOCES serves the following component school districts: Brookfield, Clinton, Holland Patent, New Hartford, New York Mills, Oriskany, Remsen, Sauquoit Valley, Utica, Waterville, Westmoreland and Whitesboro.

###

Pictured (from left to right): P-TECH students Veronica Randel-Spells (Sauquoit Valley CSD), Jesse Holmes (Westmoreland CSD) and Austin Lowery (Utica CSD).