No STEMming the Greater Lowell Tech tide

Robin Tylim, a Math teacher at Greater Lowell Tech, presents FitMoney challenge sessions to students remotely.

November 4, 2020 at 11:32 a.m.

TYNGSBORO — Students at Greater Lowell Technical High School have been participating in challenges and activities to celebrate the value of STEM education.

Last week, Oct. 19-23, was the third annual STEM week, a statewide initiative led by the Executive Office of Education, STEM Advisory Council and Massachusetts' nine regional STEM networks. STEM week seeks to promote access and student interest in the fields of Science, Technology, Engineering and Mathematics.

"It is so important that students are introduced to STEM and encouraged to pursue their interests in STEM fields at an early age," Superintendent Jill Davis said. "At Greater Lowell Tech, many of our students are being trained and educated in a STEM field in their career and technical programs, and so having an opportunity each year to celebrate their learning is a really fun opportunity for our students to recognize the industries they've already shown an interest and passion for."

Students in grades 9-12 were challenged by Partners in Health this year to think creatively about the STEM-related challenges posed by COVID-19. Students were asked to research and analyze the challenges faced by people in quarantine and develop original apps to help slow the spread of the virus locally.

Partners in Health is a nonprofit that works with national governments to offer health care and support public health systems in various areas, including cancer and chronic

disease, child health, emergency response, HIV/AIDS, maternal health, mental health and tuberculosis.

About 350 sophomores in Biology II College Prep took on Partners in Health's STEM week challenge working as app designers to conceptualize an application for a smartphone or device to slow the spread of COVID-19 in the community. Students analyzed data about the spread of COVID-19 in Massachusetts, identified a specific challenge that technology could help address, designed and gathered feedback on prototypes and presented their findings.

This week and into early November, about 120 seniors in Algebra II, Probability and Statistics Applications, and Probability and Statistics College Prep classes are also participating in a challenge to design a product, like a mask or mask accessories, to encourage other young people to wear their masks correctly and consistently.

The challenge was crafted by FitMoney, a nonprofit that works to promote financial literacy and a strong work ethic among students.

Madyson Arpin, a junior from Dracut in the Programming and Web Development program, also created an app for STEM week to submit to U.S. Rep. Lori Trahan's Congressional App Challenge. Through the challenge, legislators hold computer science or "app" competitions in their districts to promote an appreciation for computer science and STEM, and to inspire students to learn to code and pursue careers in those industries.

Each challenge is specific to a district, and winning teams and individuals are publicly recognized by their district's representative. Winning apps may also be displayed in the U.S. Capitol Building for one year.

Madyson created a "choose your adventure story" game for the challenge, in which the user makes choices and navigates through the game to find "magical" items and prizes. The goal of the game is to find all of the objects before the game ends.