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POWERING **MASS** LIVE



Emily Rodriguez, 15, of Holyoke, tests the strength of her bridge as HCC STEM graduate Teddy McCormick '17 looks on.

HOLYOKE

Building bridges to college

Summer STEM students get advice from HCC alums

Kira Tillman spent the better part of an hour rolling newspapers into tight, stout tubes. She bound them each with gift-wrapping tape so they wouldn't unfurl and then stuffed the tubes with crumbled-up newspaper pages.

"I was going to leave them hollow," Tillman said, "but she told me if you filled them they would be stronger."

Tillman is a 17-year-old student enrolled in the Holyoke Public Schools Success Center Summer STEM pro-

gram. The "she" who had offered the sage advice was 26-year-old Michelle Rame, a 2017 graduate of Holyoke Community College, where she was a STEM Scholar and majored in mechanical engineering.

Rame and two other 2017 alumni - Diane Grunwald and Teddy McCormick - visited the program to talk about what it's like to be a STEM (Science, Technology, Engineering, Math) student at HCC and lead an exercise in simple engineering.

The assignment: build a bridge using only newspaper and tape that can support a stack of textbooks. Students were free to invent their own designs.

"What do you think is most important, the legs or the road?" asked

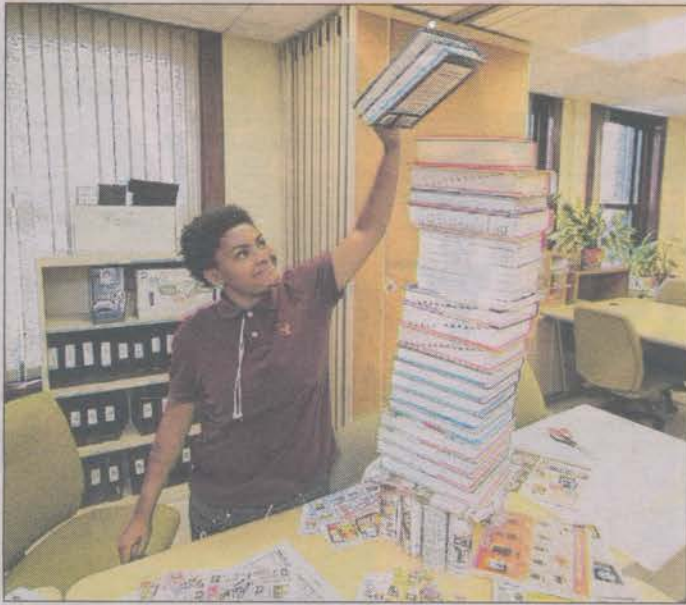
Rame, who will continue to study engineering this fall at Western New England University. "Your purpose is to hold books in the air. Your bridge has to hold the weight, not the table. Me, personally, I think the legs are more important than the road."

Thus Tillman's diligence on her bridge supports.

"I never thought of stuffing the legs," said Grunwald, a STEM Scholar who majored in math at HCC and now attends the University of Massachusetts at Amherst.

The two-week Summer STEM program was new this year, said teacher Danielle Razon, and represents an attempt by the district to keep stu-

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Holyoke resident Kira Tillman, a 17-year-old student enrolled in the Holyoke Public Schools Success Center Summer STEM program, adds more books to her newspaper bridge.



Justin Brathwaite, 18, of Holyoke, adds books to his newspaper bridge as his partner, Joel Ramos, 18, left, and HCC STEM Scholar alumni Michelle Rame '17 and Diane Gr...

Bridges

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dents academically engaged during a time when many lose interest in school.

In the past, Holyoke summer school programs focused mostly on "credit recovery" — making up classes students had failed.

This program, which is voluntary and free, allows students to earn five extra high school credits.

"This offers them something different," said Razon. "The summer goal is to engage as many students as we can. The district is aware that the summer slide happens, and they're trying out a lot of things to see what works."

The Summer STEM program is modeled after a pre-

STEM program from HCC's Adult Learning Center that is offered to adult students transitioning from high school equivalency courses to college classes.

The Success Center, which, like the center for adult learning, is based at HCC's Picknelly Adult and Family Education Center on Maple Street, was formerly known as HALO (Holyoke Adult Learning Opportunities).

Whereas HALO offered a daytime program for adults seeking their high school equivalency degrees, the HPS Success Center operates as an alternative school for students from Holyoke High and Dean Tech.

"This is another way to catch kids before they drop out," Razon said.

Razon and her teaching

partner, Nicole McNeil, decided to focus the inaugural Summer STEM program on renewable energy and asthma, two subjects of particular relevance to Holyoke, given the location of the hydroelectric dam and the Mount Tom Solar Farm and the fact that 27 percent of residents suffer from asthma, Razon said.

"Our benefits and deficits," she said.

Razon said the Summer STEM program curriculum doesn't include much career exploration, so the presence of the HCC STEM alumni offered valuable insights for the eight high school students enrolled.

"This was an opportunity for us to connect them to their next step, get them to think about something beyond high school," she said.

Justin Brathwaite, 18, said he is already thinking about his next step. He plans to attend HCC this fall to study computer science.

On the bridge-building exercise, he and his partner, 17-year-old Joel Ramos, took a different design approach than Tillman.

They fashioned their newspapers into long, thin tubes and used them like rebar to reinforce their roadway.

Tillman, meanwhile, spent only a few minutes crafting her road out of thick, flat sections of *The Republican*.

"Time to test it," she said.

"Let's see how many books it takes to crush," said Rame.

Too many, as it turned out. By the time she was done, Tillman's bridge held 26 thick hardcover textbooks. They were stacked as high as she

could reach.

"All done. I used all the books. Perfect," she said, cracking a smile for the first time and claiming victory in the friendly competition. "I beat you, Justin."

"That's all that matters," said McNeil. "Wow, Kira."

Tillman said she plans to study culinary arts in college. Rame suggested a different plan.

"Come be an engineer," she said.