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'This opened my eyes': Local teens learn science lessons from MIT students

By DON SERGENT dsergent@bgdailynews.com Jun 25, 2024



Felix Blackerby (seated), a rising sixth grader at Bowling Green Junior High, takes instruction from Massachusetts Institute of Technology student J.D. Hagood during a lesson about building an audio speaker as part of the MIT Spokes learning festival held Friday at the WKU Innovation Campus.

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Those are just some of the learning experiences Hatley McPherson will be able to share about her summer when she starts her eighth grade year at South Warren Middle School this fall.

McPherson was among 45 local middle school-age students who took part in an unusual learning festival Friday at the Western Kentucky University Innovation Campus.

Unusual because it was free and because the instructors rode into town on bicycles.

MIT Spokes, a student-run initiative started at MIT 10 years ago as a unique way to promote STEAM (Science, Technology, Engineering, Arts and Math) education, made a stop in Bowling Green and made an impression on students like McPherson.

"I like science, and math interests me a lot," McPherson said. "I learned about DNA. I liked that a lot. We made bubble wands with 3-D printers, and we learned about concrete. This opened my eyes to a lot of different things."

As eye-opening as the lessons were, they may have been less interesting than the stories shared by the instructors.

"One of the girls told us about what they have been doing," McPherson said. "She said they biked 120 miles in one day."

That day wouldn't be far from the norm for the eight MIT students making the trip from Washington, D.C., to San Francisco and conducting learning festivals along the way.

Accompanied by one van that carries instructional materials and other necessities, the students are riding their bicycles more than 4,000 miles in 80 days.

Some nights they camp out, but they spent the night in Bowling Green at a downtown bed-and-breakfast.

"We've been averaging about 70 miles a day," said MIT Spokes team member Varsha Sandadi. "Some of us had some bicycling experience, but nothing of this magnitude.

"This was definitely a little bit daunting, but all of us are adventurous."

And industrious, when it comes to academics.

Sandadi, a California native, has already completed her master's degree in computer science and brain/cognitive science but wanted to share her love of learning through MIT Spokes.

"I feel that it's important to share these lessons with underrepresented students," she said. "We tailor the activities to spark learning and curiosity. We try to make the lessons as hands-on as possible." Only the third learning festival the group has conducted so far, the stop in Bowling Green made a positive impression on Sandadi and fellow instructor Amulya Aluru.

"They (middle schoolers) have been awesome," Sandadi said. "They asked really good questions."

Aluru, who has already completed a master's degree in computer science and biology and is considering a career in education, enjoyed Friday's learning festival.

"The students were very attentive and interested in the topics," she said. "They would help each other, and they weren't afraid to ask for help."

One of those students, Severin McKinney, said making the concrete sharks was her favorite activity.

"That was pretty interesting," said McKinney, a rising eighth grader at Bowling Green Junior High. "We got to learn about concrete and pavement. "I plan on studying anthropology and paleontology in college. I like learning about science stuff."

The learning opportunities offered by MIT Spokes could become an annual event in Bowling Green, according to Sam Ford, culture and innovation fellow at the Innovation Campus.

Ford, who has partnered with MIT on other projects through his AccelerateKY nonprofit organization, said he learned about MIT Spokes when it stopped at the Challenger Learning Center in Hazard a couple of years ago.

"I met the team in 2022 and helped organize the route," Ford said. "It fits well with what we're doing here (at the Innovation Campus). MIT's goal is to help the whole country think about the jobs of the future and the skills that are needed."

Ford pointed out that having the MIT Spokes learning festival here exposes middle schoolers to important science and math skills while also raising awareness of the Innovation Campus.

"My hope," he said, "is that this will be an annual event as long as MIT continues doing it."

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