

Getting careers down to a science

Program: Building STEPS tries to help launch minority students in careers in science and technology.

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PUBLISHED ON NOVEMBER 27, 2004

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In the morning, they developed antibiotics. In the afternoon, they walked on a catwalk surrounded by swimming sharks.

Such was a recent field trip for 18 high school students from Baltimore and Baltimore County, members of an elite science club called **Building STEPS** (Science, Technology, Education Partnerships). For many of the students, the excursion to the University of Maryland's Biotechnology Institute and National Aquarium was an eye-opener.

Although they are math or science whizzes, with lofty goals of becoming doctors or computer programmers, many came away with new knowledge and, in some cases, new goals.

Tonya Smith, a junior from Dunbar High, has wanted to be an obstetrician since the eighth grade, when she watched her older sister give birth at home. But after visiting the Biotechnology Institute, where she worked with a marine biologist on an experiment to test plant extracts for antibacterial properties, Smith became curious about a different field of science.

"It made me more interested in biotechnology," said Smith, 16. "I was like, 'Whoa. I killed bacteria.'"

That's exactly the kind of impact Debra Hettleman Plant, director of the nonprofit **Building STEPS**, hoped the trip would make. The organization, which was created in Washington in 1995 and moved to Baltimore four years later, is one of several groups that try to help launch minority students in careers in science and technology.

Plant, who has a business background, said students with an affinity for science sometimes are not aware of the vast number of careers open to them.

"The idea is to get them thinking critically about their future," Plant said.

Visiting technology firms, hospitals and research labs "gets them thinking, 'Oh, wait a minute. That's a science [too]. ... I don't have to be a doctor. I can go work in an aquarium. I can go work in a research lab.'"

In addition to marine biologists, the two-year program also introduces students to radiologists, video game designers, professors and engineers.

For James Clapp, another Dunbar High student, that's the best part of the program. "You get to talk to people outside of school that [have] been through what you want to do," he said.

Students enrolled in the program go on monthly field trips during their junior year. Then they are placed in internships during the summer before senior year. Plant coaches seniors through the process of applying for college and getting scholarships.

There are other groups that try to expose Baltimore-area students to the sciences. The Johns Hopkins University's Whiting School of Engineering is planning to send graduate students into neighborhood schools. Northrop Grumman dispatches engineers to math and science classes. This month, the American Medical Association sent two doctors to speak to eighth-graders at Chinquapin Middle School.

Building STEPS, one of the most intensive science outreach programs, has an impressive track record. Of the approximately 80 students it has served, 90 percent have gone on to college, and more than half of those won academic scholarships, Plant said.

The program accepts about 20 students a year from Dunbar and Digital Harbor high schools in the city and Woodlawn High in Baltimore County. Plant said she hopes to be able to expand the program.

Vondina Brown, a graduate of Woodlawn High, credits **Building STEPS** with keeping her childhood interest in science alive. She is majoring in biology and psychology at the University of Maryland, Baltimore County.

Brown, 19, recalls that her science classes at Woodlawn High weren't challenging enough. She had enrolled in the school too late to be in its science magnet program.

Through **Building STEPS**, she was able to intern in a hospital maternity ward and nursery. Her goal now is to find cures for prenatal diseases.

Without the program, Brown said, she might not have applied for and won the university's prestigious Meyerhoff science scholarship.

1. Woodlawn High junior Kieara Thomas works with a plant extraction before testing it at the University of Maryland Biotechnology Institute.

2. Students from Woodlawn, Dunbar and Digital Harbor high schools listen to instructions before participating in an activity at the University of Maryland Biotechnology Institute.

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