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# THE CHEMISTRY WAS RIGHT < LOVE OF SCIENCE, CAN-DO ATTITUDE PUSHES GIRL TO EXCEL IN A SUBJECT DOMINATED BY THE BOYS.

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*By MATTHEW BOWERS, STAFF WRITER   September 19, 1996   Publication: Virginian-Pilot, The (Norfolk, VA)   Page: B1   Word Count: 932*

Mad scientist, Nekita K. Swain thought. I've stumbled into the lair of a mad scientist. Tables and shelves crowded with beakers and equipment filled her gaze. This Norfolk State University laboratory definitely wasn't like the uncluttered, bare-bones chemistry lab back at Nansemond River High School.

“I walked in, and I honestly said, ‘I am scared to go in here. This looks like a mad scientist lives here,’” Swain said recently. “It had chemicals everywhere. I saw this, ‘Radiation - Do Not Touch,’ and I was like, ‘What is going on here?’”

The 16-year-old high school senior loved science. Always had. That's why she was at Norfolk State for the summer.

She especially loved chemistry. Maybe it was the analytical thinking it required. Maybe the love came from her mother, who used to teach science.

Wherever it came from, the love continued even at an age when so many studies showed that girls' interest in science dropped off compared to that of boys.

Nekita had other interests, certainly - tennis, ballet since she was 2, playing the clarinet in school bands, talking for hours on the phone - but it was for her science classes that she really buckled down, even as she settled for Bs in her other subjects.

Her love of science is what had made the start of her advanced chemistry class at Nansemond River the year before so hard to take.

For the first time in 11 years of school, she noticed that the boys in the class far outnumbered the girls. And for the first time, when she tried to answer the teacher's questions or ask one of her own, the boorish boys hooted and razzed her, derided her abilities, even interrupted the teacher to answer her questions themselves.

Nekita and the other girls would cry after class.

``Yes, I cried. And I did not want to be in there anymore. But my mother said, `Stick with it.' "

Nekita did. So did the other girls. At first they were upset. Then they got mad. And they wound up doing fine.

``We were flying by the end," Nekita said. ``I would prove to those big-headed boys that they are not better than me in something I like."

So Nekita jumped to apply this past spring when her chemistry teacher told her about a summer mentoring program at Norfolk State intended to encourage high school students to pursue science careers and give them a taste of college and research life. She was the only one in her class to do so. She was chosen along with three students from Portsmouth's I.C. Norcom High School: Vashti Moore, Je'aime Powell and Dante Silmon.

Soon after, Nekita was standing in the doorway of Professor H. Alan Rowe's laboratory in Norfolk State's Center for Materials Research, wondering if she was in over her head. But Rowe, her mentor for the summer, wouldn't let her think that for long.

``He was always pushing me, saying, `You can do it, you can do it.' "

And Nekita did, just like in the advanced chemistry class. She spent eight weeks in shorts, T-shirts and often goggles, working on a biochemistry project involving pieces of bananas about half the size of a slice you'd cut for your cereal.

The project: ``The Isolation of Banana Polyphenoloxidase."

``You know," she explained, ``like when you eat an apple and you set it out for a few minutes it turns brown? The brown stuff is polyphenoloxidase."

Nekita examined the enzyme that uses oxygen to cause the reaction in the fruit's flesh. She'd slice the bananas, weigh them, grind them, spin them and measure how fast the enzymes worked under different conditions - and maybe find out how such enzymes could be used as catalysts for biochemical changes in other arenas.

``She got comfortable," Rowe said. ``At the end of the summer, she was doing very well. . . . I didn't want her to be like a lab technician, but to do something that meant something."

She was doing original research, in a real lab, learning real techniques, even down to how to properly wash lab dishes. At the end of the summer, she presented her findings to fellow students, professors and family. And she returned for her last year of high school with plans to go into genetic engineering. Or maybe medicine.

Nekita's treatment in her junior-year chemistry class - and what she's done since - follows the national trend outlined in a widely read 1992 report by the American Association of University Women. The report showed gender gaps in education, particularly in science. The older the students were, the more girls fell behind in science achievement and interest, if not in grades.

Girls took ``softer" biology classes; boys took advanced chemistry and physics.

Boys handled lab equipment more; girls observed more and took the notes.

Since the 1992 report, there has been more encouragement of girls like Nekita to continue pursuing their science and math interests. Higher attendance at and demand for science, math and computer camps for girls is one sign of change, said Gabrielle D. Lange, an AAUW spokeswoman.

“You need a work force that is technologically advanced, and you need both boys and girls to run equipment,” Lange said.

“Unfortunately, there were just a lot of old stereotypes that drove girls away from math and science.”

Nekita hopes to continue her summer research this school year with her physics teacher. The funny thing is, she doesn't even like bananas. She hasn't eaten them for years.

Ever since she found a brown spot on one.

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