

MARCH 13, 2002

Science in the City

In a high-ceilinged nineteenth century classroom, sixth and seventh graders in jeans and t-shirts peer through microscopes, intent on accurately drawing what they see. Outside, the neighborhood around Webster Middle School is bleak, vacant lots dotted with tall brick townhouses, many of them burned-out shells.

Four undergraduates from Washington University, dressed just like the kids, circulate, talking about microorganisms and assisting with drawings. The college students are a Teaching Team, a program supported by a grant from HHMI. Teaching Teams visit elementary classrooms in the St. Louis area to do hands-on science activities. This team has made an extra commitment to Webster Middle School on the city's north side, mentoring an after-school science club.

The club's organizer, junior biology major Michelle Encarnación, is heading for medical school. She remembers how she first got hooked on science. "I had one teacher who was completely into science," she says. "It just takes one person to show how cool science is and what you can do with it."

The kind of enrichment and personal contact provided by the Teaching Team is especially needed at a school like Webster, says science club sponsor and special education teacher Linda Read. "We're trying to help these kids see the possibility of going to college. I'd say 80 percent of them don't even think about it, because their parents and families haven't gone."

Encarnación and Webster principal Terre Johnson met by chance at a department store jewelry counter where Encarnación had a summer job. She told Johnson about her work with a science club at another school, and the principal begged her to start one at Webster. Encarnación recruited classmates Chris Ngo, Rupal Bhakta and Adam Schickedanz, all science majors, to mentor the club with her.

Bhakta, a junior biology and anthropology major, says she's been surprised at how inquisitive club members are. "One boy pulled us aside and asked questions we couldn't answer about photosynthesis," she recalls.

The small age difference between the children and their mentors helps, explains Elaine Alexander, Teaching Teams coordinator. "The college students are only a few years ahead of these kids," she says. "They are realistic role models."

Each year, Teaching Teams make more than 100 visits to as many as 25 schools in metropolitan St. Louis. The undergraduates, many of whom are headed to medical school, volunteer their time. Alexander, a veteran middle school educator, connects interested undergraduates with schools near the Washington University campus that have urban, underserved student populations and advises them on teaching methods.

Sarah C.R. Elgin, professor of biology and HHMI program director at Washington University, says the undergraduates benefit as much as the middle school students. "They must think more deeply about the science they already know as they look for ways to teach a new concept to a younger group, and the enthusiasm of K-8 students is contagious."