

Scientists partner with elementary school teachers and their students University science program taps young brains

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PHOTO GALLERY/STORY

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Students visited a botany teaching lab Friday. *photo Dan Toulgoet*

More than 30 students in Grades 5, 6 and 7 at Mount Pleasant elementary school visited Shona Ellis's Botany Teaching Lab at UBC Friday thanks to the Scientist in Residence Program. The purpose of this trip was to explore biological specimens in the lab.

Grade 5, 6 and 7 Mount Pleasant elementary students peered into microscopes and explored biological specimens during a visit to the University of B.C. Friday.

The students belong to a Scientist in Residence program designed to hook kindergarten to Grade 7 students on science.

The students visited Shona Ellis's botany teaching lab. Ellis has been working with the Scientist in Residence program for five years.

This term she's collaborating with Mount Pleasant teachers Jug Sidhu and Julia Vallance on a unit about biodiversity in ecosystems. Mount Pleasant students also visited UBC's Beaty Biodiversity Museum, Friday.

Research scientist Paige Axelrod founded and is managing director of the program, which launched in 2004. It's involved 37 elementary schools, more than 2,700 students, 114 teachers and 20 scientists.

"There's just so much excitement that the kids express and they're really being engaged," Axelrod said.

"When they're doing their exploration and discovery through the program, the children develop a lot of excellent skills-not only keen observation skills, but also critical thinking, problem solving and communication skills. These are really science skills, as well as life skills."

Teaching is designed to be meaningful to participants, said Axelrod, who noted a focus on experiments so students get to be scientists in the classroom and on field trips.

"They get to ask a lot of questions, make a prediction or a hypothesis, depending on their age, and they get lots of time to make their own discoveries, to observe, to record their results-basically everything a scientist would do, but at the level a student is able to handle," she said.

Partnerships are between one scientist and a team of two teachers and their students during the school year. Teachers and scientists are matched based on common interests, and together they develop a hands-on science unit around a specific theme.

They create a series of science lessons over six to eight weeks. Each Scientist in Residence partnership is provided \$1,000 to go towards science materials, equipment or field trips.

Sidhu said his students get access to materials, resources, people and places they likely haven't had before.

"[It's] the ability to go to a proper working university lab that actually has a university professor attached to it," he said.

"That's the part that's the real bonus_ [And] we're an inner city school, so a lot of these kids don't have family or friends who've ever gone to university or they may not have a brother or sister in university... [It] gives them a sense of what university could be, what it might have for them."

Axelrod dreamed up the Scientist in Residence program when her daughter entered school in 2000. Shortly after it started, she linked up with Valerie Overgaard, the Vancouver School Board's associate superintendent of learning services, who's supported the program.

It's also benefitted from support from more than 20 organizations including the Vancouver Foundation, Rix Family Foundation, CIBC Wood Gundy Richmond Office and RBC Foundation.

Axelrod noted the Scientist in Residence program also has a legacy component. When lessons are finished, scientists and teachers post them on the program's website. "We have about 200 hands-on science lessons that are available to the public for free," she said.

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