

Cambridge Students Study Science with a CSI-inspired Crime Lab

BY NIDHI SUBBARAMAN / BETABOSTON / FEBRUARY 25, 2015



Cambridge eighth graders Nellisha Leonce and Patrina Eugene examined their fingerprints on a brushed plastic cup during a week-long forensics workshop at the Whitehead Institute in Cambridge. (Wendy Maeda/Boston Globe)

A little after noon on Wednesday last week, two technicians from the Cambridge Police Department crime lab arrived at the Whitehead Institute for Biomedical Research in Cambridge, kits in tow.

But the famed center was not the scene of a crime. Rather, it was hosting a four-day vacation science

camp for middle-schoolers, and the two crime-lab techs were participating in a session called “Get A Clue” to introduce 22 adolescents to scientific skills such as microscopy and dissections.

And to make the session all the more engaging for the kids, the Whitehead and its partner in the program, the educational group Science from Scientists, had cooked up a whodunit: the theft of a candy recipe they would solve using technical sleuthing taught by real-life CSI types.

Inside the Whitehead auditorium, technicians Catherine Russo and Michaela McManus unload their tools on a table: crime scene tape, fingerprinting powder, and dusters.

“Show of hands, how many people watch crime TV shows?” Russo asked. A dozen hands shot up, followed by a chorus of answers: “Criminal Minds! Blue Blood! White Collar! Law and Order! Sherlock! Elementary!”

The case in brief: A respected Whitehead scientist, Emmet D. Seption, created a formula for an irresistible flavor of candy. But days before he sells his recipe, someone steals it.

Was it Seption’s old mentor, Derek Decker? Did his colleague-turned-nemesis Corinne Kealy have a hand in the theft? Maybe it was Gary Smith, another Whitehead scientist who was edged out of the top-secret candy project when Seption took the lead.


“Right now they think that everybody is the culprit, which is kind of what I want,” said Cortney Weiber, director of education at Science from Scientists, who designed the course and its characters — all fictitious scientists.



Cambridge seventh-grader Saya Ameli examined animal hair. (Wendy Maeda/Globe Staff)


Weiber set up the course so that the kids would get a steady drip of information through the week. The days began with recorded video interviews with the four suspects, who would drop clues in the answers the gave.

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In the afternoons, Weiber and her colleagues taught the class to examine material evidence found at the "crime scene," with a healthy side-serving of science. There was a session involving liquid analysis by chromatography, showing them how to identify ink, followed by blood type analysis of a sample found at the Section's lab, and finally, fingerprint dusting to compare those found on site, with those of the suspects.

Callie Rabins, a sixth-grader at Clark Middle School in Lexington found the science camp "much more cooler" than the TV shows.

"You really get to know the process. When you show it on TV, you don't get to see everything and how the tech does everything," said Rabins.

Her classmate Jane McKenney was thrilled because the camp lined up with her interests.

"I really want to be in the CSI or like the FBI when I'm older. So I think it's really fun," the 12-year-old said.



Michaela McManus of the Cambridge Police Department's Crime Scene Services Unit demonstrated brushing for fingerprints on a plastic cup. (Wendy Maeda/Globe Staff)

At the end of four days, students lined up their evidence: The hair fibers found in Section's lab are canine and belonged to Derek Decker's dog. The blood sample matches Corinne Kealy, and fingerprints and the ink on a letter lead them to Gary Smith.

With the clues pointing to different suspects, the students are supposed to smell a rat, and deduce that Emmet D. Section planted them all. It turns out

that word of his recipe got out before he was able to get the science to work. To avoid a scandal, he faked the theft and pinned the blame on his colleagues.

The goal of the camp is not explicitly to lead the kids into careers in science and technology careers, the so-called STEM path, said Amy Tremblay, the officer for public programming at the Whitehead Institute.

"These kids will grow up to be policy makers, voters — maybe scientists," Tremblay said. "I think it's to spark that interest in STEM and hope that they become informed adults in some capacity, whether it's an engineer or a lawyer."

The "Get a Clue" session drew middle-schoolers from Lexington, Wellesley, Somerville, and Cambridge. The fee was \$450 each, but 10 of the 25 slots came with scholarships. In addition to the February session, the Whitehead also runs a week-long science camp over three sessions during the summer, CampBio and includes a field trip and costs \$550 per child.

The Whitehead's educational lineup exists in large part because of faculty member Susan Lindquist's commitment to enhancing science awareness in primary school.

Tremblay said Lindquist is especially committed to addressing the gender imbalance in the science, technology, engineering and mathematics fields. In April Whitehead will host a two-day science conference for high school girls, where teenage attendees will present posters of their science projects, meet leading scientists, and befriend peers with similar interests.

Read the full article at:

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