Traveling Science Learning bus stops at Northampton-East

Katy Nicholson Herald Staff Writer

CREEKSVILLE - Two Northampton County High School-East biology classes worked outside of the classroom Thursday - on a 33,000-pound bus.

The school received its first visit from one of two traveling science laboratories, a 40-foot-long bus equipped with cabinets, countertops and TV screens - not to mention enough lab supplies for an entire class. The DESTINY Traveling Science Learning Program is part of the University of North Carolina at Chapel Hill's Morehead Planetarium and Science Center.

The program includes 13 different lessons, such as “Biological Bodyguards,” a study of the body's immune system, and “Genes in a Bottle,” an analysis of students' DNA, taken from their cheek cells.

The Northampton students participated in “From Finches to Fishes,” and explored evolution and natural selection through the molecular data of five different species of fish.

Jane Wright, UNC science education specialist, trained the students to become beginning molecular biologists. Wright explained that because the students had to meticulously insert tiny fish samples into narrow gel slides, they were performing a somewhat advanced lab for beginners.

The DESTINY program is designed to help remedy the decline of science education in many of the state’s rural high schools.

“We're trying to hopefully stimulate their thinking that maybe science is a good career to pursue,” Wright explained.

Students have approached her in the past, Wright said, and she helped them understand concepts that had confused them in the classroom.

“I think a lot of times, they lack confidence,” she said. “Once they get a little more confidence, I think they can see that science is a doable subject - achievable.”
The students first studied the physical characteristics of sharks, salmon, tuna, catfish and trout in their classrooms. They then boarded the bus and used digital micropipettes to place minuscule samples of each fish into slides filled with electrophoresis gel, which they placed into electrophoresis chambers.

By performing this gel electrophoresis, they were able to straighten out the proteins of the fish in order to see them. Since it is an overnight process, they planned to study the resulting patterns of the proteins in the gel on Friday.

The proteins actually make up the physical structures of the fish, and by analyzing the similarities and differences between the proteins, the students would be able to recognize the molecular relationships between the different organisms. The students' biology teacher, Yvonne Sims, received training for the program so that she was able to work with the class in the lab.

The DESTINY program, which is funded by grants and the state, has visited 8,363 students in 158 North Carolina schools since 2005, and only serves classes whose teachers have been trained for the program.

As they worked, students were quiet and focused. They seemed to enjoy performing in an unconventional setting, and with the exception of one student becoming woozy (Wright said that happens on the bus from time to time), the lesson went smoothly.

Eleventh-grader Markisha Walden said science is not normally her favorite subject, but it was nice to do something different.

“It was fun,” she said. “We learned a lot.”

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