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UNH program allowing high schoolers to learn science first-hand

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MILTON — Nute High School students are showing more enthusiasm toward their science lessons now that equipment on loan from the University of New Hampshire allows for more hands-on experiments.

The straightforward adage that such things as determining the velocity of a ball dropped out of a window are more interesting to teenagers when learned first-hand rather than simply reading about it in a textbook seems to ring true in this instance, according to Michelle Gibson, who teaches biology, environmental science, physics and chemistry.

Gibson said her students are benefiting from this hands-on philosophy which is central to two programs offered by UNH to area high schools.

"They're actually applying the teaching rather than just reading from books," Gibson said, adding students learned through lectures and reading in previous years.

To do so, UNH's Advancing Science Program rents scientific equipment to school districts in New Hampshire and Maine which could not afford it otherwise while UNH's Partnerships for Research Opportunities to Benefit Education (PROBE) program provides graduate students who work with teachers.

Third-year UNH graduate student Abe Tucker, 28, of Dover, said he really enjoys working with the high school students. He is studying genetics and wants to teach at a college level.

"I'm learning how they learn," Tucker said, adding he must make a lot of complicated ideas — like genetics — simple and easy to understand.

Tucker said the PROBE program is more inquiry-based and less lecturing.

According to UNH's website, the university placed 10 of their graduate students from the fields of science, technology, engineering and mathematics into high schools at Goffstown, Milford, Nashua, Salem, Raymond, Portsmouth, Pittsfield, Rochester and Somersworth.

Gibson previously taught at Spaulding High School in Rochester and brought the program with her when she began at Nute this September.

"Michelle (Gibson) is proving to be super excellent and she and this program really have these kids excited about science and engineering," Principal John Parkhurst said.

Other students used the equipment in an attempt to determine what color the leaves will change into this



Nute High School seniors Amanda Cote, 17, and James Mueller, 18, try to calculate the velocity of a rolling metal ball by using equipment rented from the University of New Hampshire's Advancing Science program. (Quinn/Democrat Photo)

autumn and to calculate the velocity of a metal ball rolling down a ramp.

Gibson said one drawback of the hands-on approach is students who learn better by reading are struggling — a reversal from prior times.

Nute High School seniors, Amanda Cote and James Mueller, are on opposite sides of the learning equation.

Cote said she learns better through the traditional means while Mueller said he's finds it easier to learn by doing.



Quinn/Democrat Photo Nute High School seniors Amanda Cote, 17, and James Mueller, 18, try to calculate the velocity of a rolling metal ball by using equipment rented from the University of New Hampshire's Advancing Science program.