

PHYSICS DEMYSTIFIED



Staff photo by DAVE ROBACK

Elizabeth Fenstermacher, center, a student at Mount Holyoke College, shows a project involving lasers to Michael E. Smith Middle School students Lexy Marra, left, and Michael Potter at the middle school Friday.

College outreach teaches physics

Sixth-graders got involved in hands-on physics experiments with Mount Holyoke College volunteers.

By SANDRA E. CONSTANTINE

Staff writer

SOUTH HADLEY — Twenty-seven sixth-graders at Michael E. Smith Middle School furiously rubbed their hands on their desks Friday, making them warm, at the suggestion of Orin P. Hoffman, physics laboratory instructor at Mount Holyoke College.

Hoffman explained to the students in John J. Bogacz's science class that heat generated by the motion of rubbing illustrates a physic property of how one form of energy can be changed into another such as heat.

Hoffman was at the school Thursday and Friday to talk to

more than 200 sixth-graders as part of an outreach program of the college's Society of Physics Students. He and several college students set up experiments the sixth-graders could take part in to demystify physics.

"What we want to show them is that with a knowledge of the basic principles of physics they can do any number of things that aren't directly related to physics," Hoffman said.

The physics instructor went on to show another example of how the energy in motion can be transformed into another form of energy by having 11-year-old Kayleigh D. Schmidt turn a hand-held generator. The turning generated

electricity that lit up a light bulb. The harder Schmidt cranked the generator the brighter and longer-lasting the light was.

"I liked it because I did not know that you could transfer energy into light," Schmidt said, explaining that the experiment was more fun than reading about physics in a book.

The students then split into groups and took part in a range of experiments with different college students.

Suchi Saria, a 20-year-old Mount Holyoke College junior from India, used a spear and an aquarium to illustrate how light gets refracted or distorted when it travels through water.

She had a student use a laser to spot a plastic frog in the water-filled aquarium and then had the student try to spear the frog based on what he saw. The student

missed the frog by several inches because the light was refracted, according to Saria.

"I think it was neat. Now I can try it when I go fishing. I never knew that before," said Monica D. Rosskothien, 11.

"The students have been absolutely terrific. They've been very enthusiastic. They've been having a wonderful time," said Elizabeth A. Fenstermacher, a 20-year-old Mount Holyoke College junior from Sandwich taking part in the program.

"It's hands-on. The kids are actively involved. It relates to our sixth grade curriculum and they'll be talking about it for weeks to come," Bogacz said.

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