

# South Hadley students have some fun with physics

By KEVIN ROYKO  
Staff Writer

**SOUTH HADLEY** — Students at Michael E. Smith Middle School ooh-ed and aah-ed as laser beams ricocheted around the room and danced on the ceiling of their science classroom last Friday.

It's all part of an outreach program put together by staff and students from Mount Holyoke College designed to make studying physics less intimidating and more fun for young students.

"The whole idea is to show these kids that learning about physics is more than just being

Hoffman.

The program also depends on student volunteers from the Mount Holyoke College Society of Physics Students to help bring the lessons into the classrooms.

Last week Elizabeth Fenstermacher, a junior from Hyannis, Rhea Gosh, a sophomore from Texas, Suchi Saria, a junior from India, Rebecca Barlow and Evelyn Kapusta were all down at the middle school helping the children conduct their experiments and hoping to infuse some excitement into what is often one of the least favorite subjects among students

to demonstrate the conversion of mechanical energy into light energy as well as lasers to teach refraction and reflection. The refraction exercise has students "spear-fishing" with the beam for plastic fish in a water-filled tank.

The reflection practice requires them to bounce the light beam off a series of mirrors ultimately landing on a pile of chocolate candies.

Sixth-grader Donnie Hersom, 11, said he enjoyed "using the laser and mirrors to hit the candy. It made it more fun and easier to understand."

His classmate Abbie

physics is more than just being in a lab. We want to give them an enjoyable introduction so that when they hit the textbook they do it with a purpose and it isn't so scary," said Orin Hoffman, lab director for the physics department at Mount Holyoke College.

The program relies on interactive exercises to illustrate to students that there is a direct correlation between their involvement in the experiments and the scientific conclusions they arrive at.

"They get to see that many people use physics everyday to do their jobs. With a few inexpensive items we can do some neat things and show them that you can use physics to do light shows for example," said

among students.  
"I've had a blast. I really love teaching little kids and getting their reaction," said Ghosh.

"I found it really exciting to see the students learning. It's just such a wonderful experience to see people realize new things about the world. I really enjoy teaching people," said Fenstermacher, who added that they try to gear their presentations towards lessons the children will need to learn for their state exams.

The experiments used in the program are designed to communicate the scientific principles to the students while remaining enjoyable and engaging.

They include using a hand-crank generator with light bulb

Hamilton, 11, said her favorite was the spear-fishing exercise because "it was neat to see the lasers traveling through the water."

"I think I'd like to study it (physics) more in the future," she added.

Another aim of the program is to get more girls interested in physics which is a field historically dominated by males. To this end the Hoffman and the students from the physics society will be implementing a weekly after school program at the middle school focusing on woman in physics and engineering.

Kevin Royko can be reached at [kroyko@gazettenet.com](mailto:kroyko@gazettenet.com).