



Staff photo by WALT MANCINI

ANDY GUYADER, standing, a Caltech graduate student in engineering, shows the movement of a building during an earthquake. At least 85 minority students from the L.A. area attended Caltech's 10th Annual Outreach Program.

Caltech hosts minority-student outreach

By **Becky Oskin**
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PASADENA — Caltech is famous for its Nobel Prize-winning research in biology, chemistry and physics, but the school also produces cutting-edge works in materials science and engineering, faculty and students showed Monday.

About 85 high school students got in-depth information on Caltech's research in solar cells, sensors and new types of metal and glass during the 10th annual minority student

outreach program. The program brings high school students to Caltech from magnet science and technology schools throughout Los Angeles. They spend two days meeting with Caltech professors and students to learn about opportunities for minorities in science and to encourage their interest in science careers.

Graduate student David Anderson showed off metallic glasses resistant to shattering. Applications of the glass include NASA missions to bring back Mars rock samples, Anderson said. A vacuum chamber in the lab where

Anderson works is used to test bomb-resistant window glass, a project that took on more meaning after Sept. 11, Anderson said. Upstairs from Anderson's basement lab, post-doctoral scholar Alejandro Mota ran a computer animation of a bullet penetrating a human skull. "Modeling the damage caused by different types of bullets could help police solve crimes," Mota said. His audience appeared fascinated by a computer animation developed from Mota's bullet wound models.

Yvonne Mejia, a freshman from San Fernando High

School, noted that Mota's results don't apply for other body parts with more flesh, such as arms and legs.

"If I was shot in the arm, it wouldn't look like that model," Mejia said.

Mota said Mejia was exactly right, adding that if he had a more powerful computer to work with, he could add more information to his skull model, such as the effects of skin, hair and brains.

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