Caltech Grad Students Bring Science to Local Elementary School

Four graduate students from Caltech's Tectonics Observatory recently participated in Family SMArt (Science, Math, and Art) Night at Pasadena's Hamilton Elementary School. Over 80 kindergarten through sixth-grade students and their families participated in the first annual event.

The Caltech grad students contributed to the evening's educational festivities by presenting demonstrations and activities related to their research in geology. Their goals were "to inspire kids to learn science and to show them how accessible science is."

Alan Chapman (pictured) talked about stress and strain, presenting rocks that show multiple folds within and using interactive animations to show how they might have come about. He then invited the kids to draw on balloons to see what happens to their creations under the stress of inflation.

To demonstrate why earthquakes happen, Nina Lin invited younger students to create their own scenes of earthquake faults using blocks, clay, pens, and paper, while older students cut along fault lines and then tried to align features on both sides.

In a presentation about where earthquakes come from, Willy Amidon gave the children some seismic data taken from three different locations and asked them to find the source of the earthquake using triangulation. Out came the compasses and rulers, and intense concentration.

In another demonstration, Steve Kidder passed around a rock recently found on Mount Everest that contains a fossil of a sea creature that lived millions of years ago. He asked the students how that could be—a sea creature at the top of a mountain?—and then went on to discuss how mountains form over millions of years, using images of dots to help the students visualize how much a million really is.

Parents and kids participated in this fun and educational event. One second-grade girl remarked, "I learned so much tonight. I am so glad I came."