

The California State University, Chico, chapter of the Society of Physics Students has consistently made physics outreach a priority when choosing our activities and projects. We believe that outreach activities for K-12 students are an important part of promoting both physics and general science. We hope that our chapter's positive and encouraging interactions with young students will inspire them to consider a science related field of study or employment. Our three primary outreach activities are the annual Pumpkin Drop, judging the community Science Fair, and volunteering at the Boys and Girls Club of Chico.

Our activities are primarily directed at the K-12 students in or around the Chico community. We feel that it is never too early to help children gain a sense of wonder for the world around us and to dispel the notion that science is 'uncool.' Additionally, we believe that is important to offer activities that appeal to the wide range of ages and interests in our student audiences. Finally, by engaging in these outreach activities annually we provide students with repeated exposure to our positive message and also contribute to a sense of tradition and pride within our chapter.

For the past nineteen years, we have held an annual outreach activity known as the "Pumpkin Drop". The event consists of a public demonstration of Galileo's Law of Falling Bodies, which states that all objects accelerate towards the earth at an equal rate. In Galileo's legendary demonstration at the tower of Pisa, two cannon balls of different masses were dropped together and it was observed that both hit the ground simultaneously. Under the supervision of our chapter advisor Dr. David Kagan (Outstanding Chapter Advisor, 1992), a team of SPS members reenact this experiment each Halloween using pumpkins of varying sizes. Several SPS members handle the setup, dropping of the pumpkins, and cleanup. Two members are nominated to play the roles of Galileo and Aristotle. These two students perform a scripted argument in front of a large audience, explaining the physical concepts involved in the experiment. The event is held on the university campus and approximately two hundred people attend, including about one hundred local school children. Invitations are sent to multiple K-8 classrooms and the event is eagerly anticipated by teachers and children alike.

For the past sixteen years, our chapter members have volunteered as judges for the Chico Science Fair. This community fair accepts entries from multiple schools and includes K-12 grade levels. Our members judge each grade level separately and examine projects for physics content and principles. Based on our judges' decisions, our chapter officially awards medallions to outstanding physics projects in each grade level. We also present certificates to noteworthy physics-related entries. We believe that rewarding the early interest and effort of these students is an important part of promoting their enthusiasm for science, but the thank-you notes we receive from students after each fair are what make this event especially rewarding.

The past year in outreach has been particularly rewarding. The volunteer coordinator of the Boys and Girls Club of Chico contacted us and displayed enthusiasm for volunteers who are knowledgeable in mathematics and science. K-12 students from the community gather at the Boys and Girls Club after school until their parents are able to pick them up after work. We felt that this would be a perfect opportunity to share with young students the wonders of physics. Our chapter responded by preparing several demonstrations and drafting a Marsh White Proposal. The first demonstration focused on low temperature physics. Our chapter displayed a variety of hands-on activities to demonstrate principles related to the temperature scales, phase changes, and kinetic theory. The grand finale for the event was to make Liquid Nitrogen ice cream which could be enjoyed by all.

We firmly believe that our chapter's outreach efforts are highly beneficial to our local K-12 student community. By engaging in multiple events on an annual basis, we can interact with a large number of young students and also involve our own physics majors in positive chapter activities. Both young and older students gain valuable experience from these events and we look forward to many more years of science outreach activities.



Children little see the sky is falling

By: Kyle Buis

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Brendan Diamond, as Galileo Galilei, watches as a pumpkin filled with feathers explodes Tuesday in front of a crowd of children and Chico State students. The 19th annual pumpkin drop from the south side of Butte Hall is put on by the Society of Physics Students to teach elementary school students about gravity.

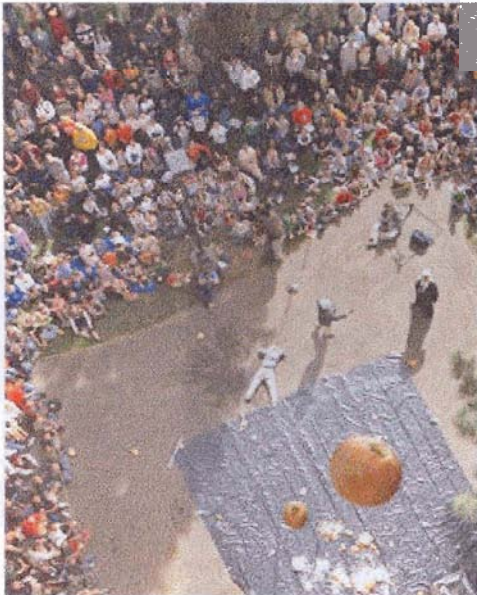




Figure 1: Goggle Distribution

Figure 2: Glove Distribution



Figure 3: Group Photo before Presentation