

Report of Physics-Outreach
done by the
Society of Physics Students
at
Texas State University— San Marcos
for
Application for the Blake Lilly Prize
2006–2007

Our chapter was honored with the Marsh W. White Award this year, which we used to fund the physics projects of the Hernandez Intermediate School 5th graders for the contest at Discover Nature in Austin, TX, held on March 24, 2007. When we applied for this award, we had stated that our outreach efforts with the 6th graders of Ms Butler resulted in them being awarded 2nd place out of four places at the Austin Science Fun Day (the same event at the same location, but given a different name) in March 25, 2006. They had competed against mostly schools from Austin, TX. They tied 2nd place with another physics group of Ms Butler's! (And, Ms Butler's life science group was awarded 4th place.) Policies are changed this year so that no students are to receive awards; instead, participation ribbons will be issued. Ms Butler accounted to me that the 5th graders in this year's contest were the "hit" of the event.

We often get squeals of excitement when we performed experiments with the Van de Graaf generator and the vacuum chamber. In the former, we had students laying their hands on the generator until their hair stood up; of course, they like to compete among themselves in terms of who had more hair standing. In the latter, we "blew up" shaving cream and marshmallows, and caused water to boil at a low temperature. Students joked about how the shaving cream would feel on themselves when that happened, and what the marshmallows would taste like. Such experiments were performed on the Texas State campus for students from Barton Middle School in November 3, 2006, and during the College Awareness Tour organized by the Office of Community Relations at Texas State on January 26, 2007. Participants of this event consisted of eighty Gifted and Talented students from Goodnight and Miller Junior High School who were mostly minority and at-risk.

Several SPS members helped at the science fair at Miller Junior High School by judging science projects on February 8 and 9, 2007. One of our members judged the physics projects from the Junior Division of the Austin Energy Regional Science Fest held at the Palmer Events Center in Austin, TX on February 22, 2007. Another member helped at the Scholars Day Honors Browse Session on February 9 and 12, 2007 at Texas State University by answering questions to visiting high school students about Dr Donald Olson's (physics professor) poster and research as well as other issues related to matriculating at the college. She received two letters of appreciation, one from Dr Diann McCabe, Associate Director of the Mitte Honors Program, and the other from Dr Michael

R. Heintze, Associate Vice-President for Enrollment Management and Marketing. They described how her presentation was excellent and her interaction effective.

We are arranging more outreach projects for the rest of the academic year. On April 26, 2007, we will be going to Lehman High School of the Hayes Consolidated Independent School District to talk to students about majoring in physics at Texas State. Our goal is to dispel fears that students may have concerning the discipline by providing real-life accounts of methods to achieve success, and explaining the beauties as well as practical applications of physics. We are in the process of arranging the *Making Nitrogen Ice-Cream* project at Bowie Elementary School of the San Marcos C.I.S.D. On a choice from the dates of May 4, 11 and 18, 2007, we will be holding the *Physics of Roller Skating* at San Marcos High School. Jennifer Nalley, our member who is also a professional roller skater, will be performing while Kellie Beicker explains the physical concepts behind the motions. We aim to connect students with physics through something fun and thrilling that they are familiar with.

Pictures taken at the Family Math and Science Night, where the physics projects of the 5th graders built for Discover Nature were presented, Hernandez Intermediate School, San Marcos, TX, March 27, 2007

