

## **Boy Scout Engineering Day May 14, 2005 at the Orlando Science Center** ***Sponsored by the East Central Florida Branch of the American Society of Civil Engineers***

What a fantastic day. 140 Scouts visited the Orlando Science Center on Saturday May 14 to learn about engineering from 28 volunteer ASCE engineers and designers. We started the day with a brief welcome and introduction to Civil Engineering.



45 Cub Scouts were treated to designing the city of the future. Maria Friedli introduced the Cubs to how civil engineers design streets, buildings and towns. Maria was assisted by Loreen Choate, Rhonda Gibson, Paul Schiebold, Krista Sommerfeldt and Lindy Wolfe. The Cubs designed the city of tomorrow and built their designs from graham crackers, sugar cookies, icing and many other goodies. As you would expect, by the end of construction, all of the scouts had a minor sugar rush going. EarthTech provided funding for the construction materials or sugar feast, depending on your point of view.

16 Boy Scouts, working on their Drafting Badge, joined Ray Kearney to learn how to use AutoCad. Ray was assisted by Brandon Bobo, Donna Kearney and Zaida Morillo. 4 Computer stations on loan from CDM, were used to teach the basics of AutoCad. The scouts reviewed the layout of a two bedroom home and drew the floor plan using basic AutoCad tools. At the end of the workshop the final floor plan was expanded to 3D and the scouts had a glimpse of the future of Drafting.



The remaining 79 Boy Scouts and Webelos were divided into four groups and were rotated through each of the following four 40 minute workshops.



Sharon Beverly let the scouts play in the mud and watch a sinkhole form in the Geotech workshop. Sharon was assisted by Karine Chami, Colin Jewsbury and Brian Rose. The scouts tested different soils for permeability and strength and watched a sinkhole form in a specially designed sand box.

Donna Friis helped the scouts build a paper tower that could carry as many as 38 books. Donna was assisted by Nimesh Bhavsar, Josh Davis, Jordan Helbraun, Bassel Kassem, Juan Valenzuela and Tim Verwey. Based on the ratio of cost of material to load capacity the scouts were challenged to design and build the most efficient tower.



Tim Linder demonstrated traffic design with the assistance of Hector Bertran and Sarah Greene. Hector brought in an operating full size traffic signal to help the scouts understand the workings of urban traffic. The scouts were helped to design an interchange while learning about traffic management and environmental impacts.

Tami Concepcion collected pollution on a model watershed and showed the scouts how engineers are managing and removing pollution. Mary Fickert and Amy Guilfoyle assisted Tami as the scouts washed away the pollution and learned about the water cycle.



Our thanks to the Orlando Science Center represented by Kirsten Brown for providing the facilities and logistic support. The Science Center also furnished lunch for the volunteers.

Through the efforts of these dedicated individuals and organizations, Civil engineering has been introduced to these young future engineers. I can only give my thanks to all of the volunteers which is woefully inadequate for the preparation and work they performed. It is my hope that these volunteers reap the rewards they so richly deserve from the faces of the boys and girls, the faces that are our engineering future. If you were unable to participate this year stay tuned for Engineering Girl Scout Day next year.

Thank You,  
Rob Maples