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Girl Scout outreach tradition continued with engineering workshop



Girl Scouts in yellow shirts pose with SWE members in green shirts

Last month the student section of the **Society of Women Engineers (SWE)** offered its annual **Making It Matter - Engineer for a Day** engineering workshop to about 30 fourth-, fifth-, and sixth-grade Girl Scouts from the Glowing Embers Council.

The six-hour Saturday event allowed the Scouts from Marshall, Battle Creek, Richland, Comstock, Coldwater, and Portage to sample a variety of engineering-related problems and activities. They also earned "Making It Matter" engineering badges for their efforts.

The Scouts made paper, built straw towers, and tested their egg-protection designs by placing raw eggs in them and dropping them from the stair landing to the first floor at the Parkview Campus.

SWE President **Marjorie VanHoorelbeke**, a senior in civil engineering, offers design ideas to Scouts who are designing and building a straw tower capable of holding a volleyball.



The Scouts, divided into three groups, participated in six events led by 12 WMU engineering students with several different engineering majors: **Allison Porrett** and **Marjorie VanHoorelbeke** (civil); **Krisana Gutierrez** and **Aarti Valsadia** (industrial); **Sarah Gerbig**, **Mallory Good**, **Diana Janke**, and **Barbara Vermeersch** (mechanical); **Danielle Boyd** and **Erin Bushman** (paper), and **Courtney Heath** and **Katie Risnes** (chemical). Risnes coordinated the workshop.

The engineering students shared information about how they chose engineering as a career path and how they selected WMU as their school of choice. In the morning workshops, the Scouts designed butterflies using



Girl Scout leaders (in foreground) watch as Scouts drop the egg containers they designed from the Parkview Campus stairs to a large sheet of plastic spread out on the first floor. While most of the protective container designs failed, a few worked and their eggs remained intact and uncracked after the fall.

chromatography, solved a "radioactive" ping pong ball problem, and made paper.

The afternoon workshops involved designing a roller coaster with a 12-foot-long piece of plastic tubing, building a straw tower that could support a volleyball, and preparing packaging that would protect an egg from a 12-foot fall. Each Scout was given a raw egg and materials to design and build a container that would protect the egg from a fall.

To test their packages, the Scouts dropped their eggs from the stair landing at the Parkview Campus. Some of the eggs survived. VanHoorelbeke, SWE president, said the activities explored aspects of chemical, aeronautical, paper, mechanical, civil, and construction engineering.



SWE members (left) check out a roller coaster design

SWE has been offering various Girl Scout engineering workshops for the last five years. Last year SWE was nominated for a STAR Award for its outreach activities in the Kalamazoo area. SWE advisor is **Dr. Ikhlas Abdel-Qader**, an associate professor in the Department of Electrical and Computer Engineering.

Opinions and ideas, please! Send your thoughts on this article or suggestions for future articles to the editor at jerrie.fiala@wmich.edu. Thank you.