



A partnership between engineers, industry and a popular children's television show highlights the engineering profession to young audiences.

Karen Thornton

One of the main objectives of National Engineers Week is to reach young children and spark an interest in engineering and science early on in their lives. This year, National Engineers Week runs from February 17-23, and the National Engineers Week Committee will focus on children who are six to 12 years old. By zoning in on this age group, the committee hopes that children will adopt a love of science and math that will continue on into a possible career.

In order to reach this particular audience, the committee has launched a new educational program, ZOOM into Engineering, based on the daily PBS television series and web site produced by WGBH Boston. This program will teach children the essence of engineering through hands-on experiments, such as putting an egg in the toe of a nylon stocking to test how far it can drop before it splatters, creating a mini-bungee jump.

The program kickoff was held on October 15 at the National Building Museum in Washington, D.C. The co-chairs, the American Society of Civil Engineers (ASCE) and Dupont, held a training seminar to sharpen the teaching skills of engineers. The seminar brought together more than 80 volunteer engineers from 24 states. These "trained" engineers will then go into schools and possibly other public venues, such as malls, with activity sta-

tions, testing zones, video monitors and engineer facilitators.

ASCE and WGBH formerly had a partnership in the Building Big project. The Building Big project was a kind of educational documentary shown on WGBH that discussed several aspects of building, including highways and dams, among others. ASCE was the principle sponsor in funding the educational outreach, Build-A-Thon, that worked on doing experiments with children. This partnership was so successful that ASCE (along with DuPont) decided that the series, ZOOM, would be a great fit for National Engineers Week.

ZOOM, a PBS program with an audience of six million children, has 10 million visitors to its website. Only young people are shown on the show; no adults are seen. The program is designed by children with ideas from other children who have visited the website. In other words, the children who visit the website offer ideas for the show.

"On the program, children solve a problem or experiment. What they're really doing is applying the principles of engineering," said Hank Hatch, P.E., F. ASCE, ASCE's Chair of National Engineers Week.

Educational outreach for the ZOOM project will take place in major cities throughout the U.S. during National Engineers Week. ASCE and DuPont will help and fund the outreach, and WGBH will decide on the content for the programs appearing on television.

Five hundred engineers will be participating in the ZOOM project during National Engineers Week.

To assist engineers in the program, WGBH and National Engineers Week have produced 7,000 ZOOM into Engineering toolkits, each containing an Activity Guide, CD-ROM, video and giveaways. The guide details eight hands-on activities for use at ZOOM into Engineering events, which were presented at the seminar and information on engineering websites and other National Engineers Week programs such as Introduce a Girl to Engineering Day. The CD-ROM contains additional resources, a training tutorial and printable files of Activity Guide projects.

National Engineers Week has an interdisciplinary focus: chemical, electrical, civil, structural, geotechnical, etc. Children experimented with structural engineering when they built a geodesic dome with gumdrops to show how a triangle is a rigid shape and a square is not. The triangle introduced the ideas of trusses and allowed the kids to participate in a basic form of structural engineering.

ZOOM will broadcast the experiments during National Engineers Week. To visit the ZOOM website, go to [www.pbskids.com/zoom](http://www.pbskids.com/zoom).

For more information on ZOOM into Engineering activities and for a copy of the Activity Guide and CD-ROM, contact Donald Lehr at 212.967.8200 or [74731.2172@compuserve.com](mailto:74731.2172@compuserve.com).