EXPANDING GIRLS HORIZONS WITH STEM

Veterinarian, pediatrician, novelist, interior designer, teacher, physical therapist, material engineer—the girl participants of Expanding Your Horizons (EYH) have big plans for their own futures. These girls know that in general fewer women than men enter STEM fields, but they have come to UNI for a day of exploration designed to create opportunities that change all that.

STEM is Science, Technology, Engineering and Mathematics.

Expanding Your Horizons is a day dedicated to helping girls become aware of and prepared to take advantage of every opportunity available to them, including participation in future math and science courses that will insure they leave high school prepared to pursue a STEM career. EYH begins with a motivational speech by an outstanding Iowa engineer, Nancy Post, Global Quality Manager for Large Tractors at John Deere. Nancy shares her own story of growing up in Iowa with 14 older siblings. No one in her family expected her to seek out a career in STEM, but they supported her when her grades and personal interest made it a possibility. Family encouragement and support is important to every student’s academic success. Parents and family members don’t have to be experts in STEM, just being supportive of a child’s participation in STEM opportunities increases the chances that she will seek out future opportunities. At the end of her talk Nancy invited the girls to ask her questions and they did! What was the biggest challenge you’ve faced? Why did you decide to work for John Deere? What helped you most?

Over 100 Cedar Valley grade girls in 5th through 8th grade participated in EYH on October 4, 2014. Each girl participated in 3 engaging STEM sessions, most were led by women STEM professionals including presenters from University of Northern Iowa, John Deere, Viking Pump, Cargill Inc., ConAgra, and Iowa State University. Additional volunteers from Hawkeye Community College and the American Association of University Women ensured that participants met a wide variety of STEM mentors throughout the day. Session activities included becoming a taste-tester, metal casting, programming robots, materials testing, and determining which metals different coins are made of.

In the Interior & Textiles Design session girls learned how CAD (computer aided design) and Photoshop are used to “see” and “walk in” a space before it ever exists. They used a program to assist them in designing their own repeating pattern material as an example of the aesthetic side of design. The girls also
discovered that material science is essential to ensuring our designed spaces and apparel are safe—this is an important message about STEM careers. Even among girls who self-identify as interested in STEM, aspirations to pursue STEM careers is low, primarily because of the stereotypes that prevail about it is like to be an engineer, computer programmer, or scientist. Girls want a career that allows them to be a part of a team and results in making the world a better place. At EYH stereotypes are left behind, girls talk with real STEM professionals about what inspires them, what they do every day and why they choose their career.

Expanding Your Horizons is a national program (http://www.expandingyourhorizons.org/about-us.html), Cedar Valley SWE (Society of Women Engineers), along with the sponsors listed below, developed and funded this Cedar Valley EYH event. Planning has begun for the next Cedar Valley EYH to take place on the UNI campus Fall of 2015.

Cedar Valley Expanding Your Horizons Sponsors

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