Middle School Challenge: Pasta, Gumdrops & Earthquakes

Gummy bears, marshmallows and dry pasta were just some of the building materials used to create earthquake-proof structures at the SMILE Program’s 2016 Middle School Challenge and College Connection Days, held March 10–11 and March 17–18.

More than 250 middle school students from SMILE clubs across the state attended the two day events. The students put their creativity and engineering skills to the test building structures that were at least 50 cm tall and could withstand a simulated Magnitude 10.0 earthquake on a shake table designed and built by three Oregon State University Mechanical Engineering students.
The students were not only tasked with designing the structures, they also had to carefully plan out which materials they would need and keep within a budget. Who knew 10 sticks of fettuccine would cost $10,000? These students did. And, keeping in budget, and on task, was all part of the challenge.

Over 25 Oregon State University students volunteered to work as team mentors with the middle school students, and provided guidance and encouragement as they worked to meet the goals of the Challenge. The first day of the event was held at Western Oregon University. Beside the engineering challenge, students ate in the WOU cafeteria and stayed in the Oregon Military Academy.

The following day, students got another slice of college life during the College Connection Day at Oregon State University. They spent the day touring the campus, visiting bioenergy and engineering labs, participating in bioenergy experiments and learning about STEM careers and college life. Students also got to visit the O.H. Hindale Wave Research Laboratory, the Radiation Center, the greenhouses, and the geology department, where they learned about rocks and minerals and witnessed the explosion of a volcano trash can!

SMILE Summer Bridge Program

Do you know any graduating seniors in your community who will be attending OSU this fall? Encourage them to apply to the SMILE Summer Bridge program!

Summer Bridge is a FREE 12-day all-inclusive immersion program designed to help new students adapt to the college environment. It offers an opportunity to connect with other incoming students and learn about campus resources that will help students successfully transition into college life. Students receive a stipend for participating.

More information here: http://smile.oregonstate.edu/summer-bridge

Applications are due by July 1st!
High School Challenge: Bioplastics & College Connection

Teams of SMILE high school students put their analytical and creative skills to the test during the annual High School Challenge, held April 28–29 at both Western Oregon University and Oregon State University.

This year, the teams were challenged to make a flexible, bioplastic film that can be used for time-released drug delivery. They then tested their films for flexibility and durability. They created a prototype that theoretically could be infused with medicine that releases over time – much like a nicotine patch. Finally, the teams devised a marketing pitch for their film and made a presentation to investors, as if they were a start-up biotech firm. In these presentations, students showed their knowledge about making the bioplastic film and its beneficial uses as a drug delivery method. Special thanks to students from both the BioResource Research Program and the Austin Entrepreneurship Program for leading the informative breakout sessions!

Once the Challenge was wrapped up, students visited Oregon State University where they had a chance to tour labs where engineers and scientists are actively creating products of the future. Students toured campus, participated in an Environmental Health science experiment, visited the MakerSpace at the Austin College of Business, and had a panel discussion to answers questions about college life and debunk myths about college.

Monroe Middle School Club: A Day in the Stream

During their last full club meeting of the year, Monroe SMILE students spent their afternoon in Shafer Creek! As part of their StreamWebs project, students put on waders and used a net to collect macroinvertebrates at different points along the stream. We saw both a beaver dam and den in the process!

To learn more about StreamWebs, visit: http://www.streamwebs.org/

Evergreen Elementary in the Siskiyous!

The Evergreen SMILE club had their final meeting of the year at the Siskiyou Field Institute in Selma. They spent the afternoon analyzing the health of Deer Creek by looking at aquatic invertebrates, temperature, and pH. Plus they all got wet! Here are some students’ reflections on their year in SMILE:

My favorite meeting was when we made the paper airplanes and tested how far they could go and how far north and west and how far east and south.

One of my favorite memories was when we went to the college and tested out the formula for the fireworks.

My favorite meeting was when we went to OMSI and spent the night at the museum.
SMILE Graduates

We would like to recognize the achievements of all of our SMILE graduates. Thank you for all of your hard work and dedication, and we wish you the best and brightest future! Congratulations!

At this year’s High School Challenge, we had the opportunity to honor six outstanding SMILE students who have been club members for the last nine years – from 4th-12th grade! This remarkable commitment demonstrates the abilities, talents, and drive that these students will apply to all their future endeavors and successes.

9-Year SMILE Students:
Cynthia Estrada  
Nyssa High School  
Jacoby Hernandez  
Nyssa High School  
Joshua Leckie  
Siletz Valley Early College Academy  
Alia Parker  
Illinois Valley High School  
Vanessa Ruvalcaba  
Nyssa High School  
Rosa Sanchez  
Nyssa High School

Elementary School Trip to OMSI and PCC

On April 22nd, 100 elementary school SMILE students arrived at the Oregon Museum of Science and Industry (OMSI) for an overnight field trip! Activities included a meet-and-greet bingo game, exploration of the museum and the Game Masters exhibit, a planetarium show, a brief appearance by Sir Isaac Newton and his laws of physics, the Star Wars soundtrack played by Tesla coils, a film about astronauts and the Space Shuttle, three engineering challenges, and a tour of the submarine! For many students, this was their first time to Portland. For everyone, this was their first chance to meet SMILE students from the other side of the state!

After sleeping in the Life Science exhibit, students met at Portland Community College’s Rock Creek campus. There, students toured campus and spoke with college students in a panel discussion about their experiences at PCC. Students also visited labs where they learned about everything from the chemistry of fireworks to the science behind zoo-keeping!

Thank you for another great year of SMILE! Have a wonderful summer and see you next year!

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