

SMILE Fall Newsletter

December 2016



Family Math & Science Night

Aluminum Foil Boats, Earthquakes, Capacitors, Chemistry, Skittle Chromatography and More!

Lego bridges, catapults, nature art, and whale jenga were just some of the exciting activities shared during Fall Family Math and Science Nights that were hosted by SMILE Clubs across the state of Oregon. This Fall 16 SMILE communities held events serving hundreds of students and their families and the SMILE office was fortunate enough to get out to 15 of those events. There was great variety in how communities chose to execute their events with some using Passports to encourage families to visit all of the activities, some were held in the cafeteria offering pizza and snacks, while others used the gymnasium or classrooms. Multiple communities opened their doors to the general public while others only invited the families of Club members. Activities were led by a variety of people including older club members, SMILE club teachers, and community partners, such as 4-H, the OSU Engineering Club, and Oregon Caves. SMILE staff who attended brought a hands-on STEM activity to share, OSU giveaways, and informational handouts relating to college readiness.



Beaver Tales!

Submitted by Joan Swafford, Jefferson Middle

Environmental Science PhD student Tulia Upton partnered with the SMILE program to share an interactive stream table which allows students to create their own dams and watersheds. Tulia wasn't able to get out to as many schools as she had hoped but did share her knowledge about beavers with a couple of Clubs!



Here is what Arlette Moreno-Escamilla from Jefferson Middle School had to say:

"Tulia was a wonderful person for all of the SMILE group. She taught us about beavers and how they live their life in the wild. I loved the way she introduced herself to the group, it looked like she knew what she was doing and she did a wonderful job on everything. If we ever get a chance to meet her again it would be fun. And I hope she can come back and see us and teach us when she can."

Tulia has returned to her home country of Canada for the time being and won't be able to share about beavers, but we plan to bring in others with expertise to the Winter Teacher Workshop!

Nyssa Students Lost in a Corn Maze!



During their field trip to a corn maze, Nyssa High School students also learned about drone flight. Drones allow you to collect information from places that might otherwise be difficult to access. This photo was taken with the drone directly overhead.

Willamina Students at Mt. Hood

Submitted by Sandy Smith, Willamina High

After studying about dangers from volcanic eruptions the Willamina SMILE club decided to visit an old lahar on Mt. Hood and other geological sites.

We started at the ZigZag Ranger Station and from there we went up the Sandy River to the Old Maid Flats. This is an old lahar from an eruption on Mt. Hood around 1600. We observed the differences in soil types, collected water samples and measured trees.

Students used builtmore sticks to estimate tree heights and observed the trees trying to grow in the lahar soil. We found that there was very sandy and rocky soil that had little ability to hold nutrients. We then drove further up the Sandy River to the Frenche's Dome Trail Head and visited Frenche's Dome, an old lava plug that predates Mt. Hood. Finally, we headed to Timberline to get a closer look at the mountain and note where landslides have occurred.



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Illinois Valley Clubs Work Together

Submitted by Tammi Snyder, Evergreen Elementary

This year we have had some great collaboration opportunities between the Illinois Valley SMILE Clubs. The first chance we had to get clubs together was for an engineering activity. The IVHS Club came down to Evergreen Elementary and the high-schoolers led small groups of the younger students through the steps of designing, building and testing a contraption to protect an egg dropped from about 8 feet in the air. The students were allowed to use toilet paper, tape, straws and two sheets of printer paper. The kids in both clubs had a great time. The activity was engaging, educational and exciting!



Z Space Technology

Submitted by Ken Dickey, Nyssa High

On Thursday, Nov. 17, the Nyssa High School SMILE club took a visit into “Z Space”. Z Space technology allows the viewer to see the third dimension on a computer screen, while wearing 3-D glasses. The programs allow students to dissect, rotate, and manipulate objects in a virtual 3-D environment, seemingly pulling things outside of the computer screen.

Our students performed virtual dissections of the human heart and teeth. They also pulled away layers of Earth to examine the parts of volcanoes and geysers. In chemistry, students explored the periodic table and manipulated large molecules. In the physics environment, students were able to create Rube-Goldberg devices, watch them perform, and measure results.



The Z Space team brought their RV to Nyssa to show off the technology. We were so impressed that our local ESD has since invested in twelve Z Space computers, which will be on loan to area districts, including Nyssa. We plan to be back into Z Space several times to take a closer look at what the programs have to offer.

Lebanon High School SMILE Teacher Wins Award

New SMILE Club leader, Emmet Whittaker received the 2016 Oregon Science Teachers Association Outstanding Classroom Teacher Award. Congratulations Emmet and welcome to our team!



Ocean Acidification Webinar

In partnership with the College of Earth, Ocean, and Atmospheric Science (CEOAS) and the StreamWebs program, SMILE launched its first Webinar. Through a question and answer session with associate professor and researcher George Waldbusser we explored the ways that humans are altering ocean processes and discussed the impacts of Ocean Acidification on oyster and mussel shells. Janice Rosenberg with the StreamWebs program then shared activities and resources to teach about Ocean Acidification. This webinar is the first of many that we plan to do over the next year, stay tuned!



To access the ocean acidification lessons and resources that were shared during the webinar go to:

<http://smile.oregonstate.edu/webinars> and

<http://www.streamwebs.org/>

Monroe "Stem Squad" Travels to Newport!

Submitted by Marie-Louise Martinson, Monroe

On Friday Nov. 11 the SMILE Club from Monroe took a field trip to Newport on the Oregon coast. Maggie Livesay and Jody Enierson from the OSU 4H program accompanied the group, along with the seventh grade science teacher Marie-Louise or (aka Mrs. Martinson).

The trip began with a hands on learning experience from OSU's Hatfield Science Center located in Newport, Oregon. Our first stop was the Guin Library where we learned about different ocean studies and the personal experiences of an OSU student actually studying the ocean! Next, we walked through the public interpretation center.



After all of that learning we had worked up quite an appetite so we stopped at Mo's on the historic waterfront in Newport. For lunch we ordered clam chowder and chili with garlic cheese and plain bread. When we were done with lunch we split up in groups and walked down the bayfront looking at the shops.

Next, we headed down to Yaquina Head lighthouse! We stopped at the lighthouse interpretation center and talked to a Park ranger and we discussed a couple things about the tide pools and safety hazards. Then we did a short scavenger hunt through the interpretation center and then walked down to Cobble Beach to the tide pools. We walked around the tide pools then did an activity about what animals lived in each zone of the tide pool.

Finally, we took in the beautiful sight of the coast and we loaded the bus and headed home to Monroe.

A Note From the Director

Dear Friends, 2016 has been a year of transition, growth and innovation for the SMILE program. As the new Director I experienced first-hand how important SMILE is to both our students and teachers. From afterschool clubs, to challenge events held at OSU, to teacher workshops, SMILE takes a holistic approach to supporting student success. As proof: 100% of SMILE seniors graduated high school in 2016 and our data shows that the longer a student participates in SMILE, the more likely they are to attend a four-year university.



SMILE is one of Oregon's longest-serving student STEM enrichment programs. During the last 30 years our program has served over 17,500 students and 1,300 teachers. We will celebrate our 30th anniversary on October 17th, 2017 and I will send more details later on ways you can participate in the celebration.

SMILE's success depends on many dedicated teachers, students, faculty, staff, and funders. Teachers are the foundation of our program; they run the afterschool clubs, attend workshops, and bring their students to campus for the overnight challenge events. SMILE teachers tend to be exceptionally devoted, and I'd like to congratulate Ken Dickey from Nyssa for 23 years of service to his SMILE students. Our teachers also tend to be exceptional contributors in their field, and I'd like to congratulate Emmet Whittaker from Lebanon who recently received OSTA's 2016 Outstanding High School Classroom Teacher Award.

External funding is essential for supporting SMILE's many activities. Special thanks this year to the Oregon Community Foundation, the National Science Foundation, and the University School Partnership program for their generous support.

Finally, innovative ideas from the SMILE coordinators, Jay Well and Renee O'Neill, have enabled SMILE to expand the number of teachers and students we serve. Examples include, starting two new SMILE Clubs in Lebanon, piloting Mobile Teacher PD Workshops that reach teachers in their rural communities, as well as SMILE Start Up, a condensed program enabling schools to pilot a SMILE Club.

It has been a wonderfully rewarding and productive year. Happy Holidays and we're looking forward to working with you all in 2017!

- Kyle Cole

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