

Happy October! Hope your classroom is staying warm and dry. We have lots of updates in this week's newsletter. Here's a preview:

- ★ Opportunities
 - ORSEA cohort application (\$1500!)
 - Oregon Math Leaders Network
 - Sci Fest
 - Nuclear Science Week
- ★ Resources
 - GeoDa
 - CODAP
- ★ South American-inspired Pan Pipes activity
- ★ Science News with LaCuKnoS: the science of ghosts

In a hurry? **Action items are highlighted.**

2021-22 School-Year Calendar



It's time for SMILE community meetings! **Sign up for a Google Calendar Appointment Slot between 10/11 and 11/5 so we can connect.**



What information about the virus and the vaccines should we believe and trust? How do we decide what to do? **Tuesday, October 26th at 4pm PT**, look forward to a **LaCuKnoS virtual PD session** with a **\$35 stipend** for SMILE teachers!

SMILE Housekeeping Checklist

- Please fill out the **Teacher Information Form** in Ideal-Logic
- When you know your Club Meeting Schedule, please fill out this [SMILE setup info google form](#).
- Club applications materials are due November 5th. Membership applications and a teacher help guide can be found on the [Program Forms section of the website](#).
- Trying to plan** Family Math & Science Night in an uncertain time? Fill out this [FM&SN info google form](#) to update us.

Recruitment & Planning Resources

- What are SMILE clubs? [Link to YouTube recruitment video](#)
- [Recruitment Google slide flyer template](#) (easy to edit!)
- [Family Math & Science Night flyer template](#) (edit away!)



Help a beaver out!



Email SMILEprogram@oregonstate.edu to submit stories and photos we can feature in the newsletter!

Opportunity for Gr 6-12 Math and Science Teachers in Oregon

Teachers:

Apply to join the
2021-2022 ORSEA Cohort!



**OREGON MARINE SCIENTIST
AND EDUCATOR ALLIANCE**

*ORSEA connects math and science **educators** with **scientists** to create and pilot lessons centered around marine-focused **anchoring phenomena**.*



See past ORSEA Lessons

<https://oregoncoaststem.oregonstate.edu/orsea>

Who: Oregon middle- and high-school level math and science teachers.

What: Teacher-scientist teams co-create integrated math and science units that address coastal ecology, ocean literacy, and career-connected learning.

Teacher participants
receive a **\$1500
stipend** upon
completion
(August 2022)

When: Three 2-hour webinars in Nov/Dec, followed by monthly online 1-hour check-ins throughout the winter and spring. Teachers determine when to implement their lessons with their students in the spring of 2022.

Why: To build community between teachers and researchers, use marine science to address NGSS and Common Core standards, and increase student interest and awareness of ocean science and marine-related careers.

Apply by Oct 15:
<https://beav.es/Uk4>



ORSEA is supported by Oregon Sea Grant and the Oregon Coast STEM Hub, as well as the National Science Foundation Regional Class Research Vessels under Cooperative Agreement No. 1333564 Award: OCE-1748726.

Opportunities

Oregon Math Leaders Network

The [Oregon Math Leaders Network](#) is a community of math practitioners who work together to implement and support math teaching and learning in Oregon. Participants include teacher leaders, TOSAs, program administrators, college faculty, and math community partners. If you identify as a math leader, you are! We support each other personally and professionally by asking critical questions, collaborating on problems of practice, and sharing our work.

Because this network spans the state, the topics of our collaboration will generally be driven by district needs. Examples of such activities include:

- Professional learning opportunities, for both teachers and administrators.
- Curating and sharing promising resources and effective strategies.
- Support for evaluation and implementation of instructional materials.
- Support for building-level activities such as lesson study groups and one-on-one discussions.
- Networking with other math leaders across Oregon.

For the 2021-22 school year, the network plans to meet virtually on the third Thursday of each month from 3:30-4:30pm. To receive a calendar invitation and Zoom link, please join the [Oregon Math Leaders Google Group](#). If you're already a member, you don't need to sign up again -- you'll get the invite and link. Our next meeting will be Thursday, October 21, 2021. Hope to see you online!

SciFest All Access Virtual STEM Expo for K-12 Students, Educators, and Families



During this virtual event happening on **October 18-24**, attendees can access engaging STEM (science, technology, engineering, math) resources and activities 24/7! Register online to view exhibits; check out the AstraZeneca Educator Resource Hub for classroom activities, materials, and 10- to 15-minute educator workshops; and view performances by science superstars on the Discovery Channel STEM Stage.



Virtual STEM
Activities



Interactive Exhibits
& Stage Shows



STEM Scavenger
Hunt



Educator
Resource Center



Student Projects
on Display

Nuclear Science Week

Taking place on **October 18-22**, Nuclear Science Week explores what it means to “Think Clean. Think Solutions. Think Nuclear.” The event is an international, broadly observed week-long celebration to focus local, regional, and international interest on all aspects of nuclear science. Each day will provide for learning about the contributions, innovations, and opportunities that can be found by exploring nuclear science. Teachers can download [lesson plans, tools, and curricula information](#) free online. The website also has videos, interviews, and experiments with industry professionals.



Think Clean. Think Solutions. Think Nuclear.

October 18 – 22, 2021

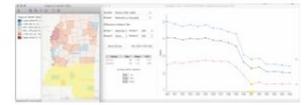
Resources

GEODA: AN INTRODUCTION TO SPATIAL DATA ANALYSIS

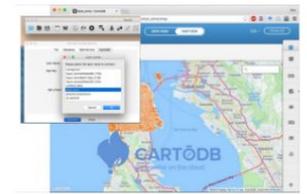
[GeoDa](#) is a user-friendly software program that has been developed since 2003 to support the free and open-source spatial analysis research infrastructure. It has one goal: To help researchers and analysts meet the data-to-value challenge. This challenge involves translating data into insights. The program is designed for location-specific data such as buildings, firms or disease incidents at the address level or aggregated to areas such as neighborhoods, districts or health areas.



Basemaps help contextualize the main map layer.



The Averages Chart aggregates trends across time and space.



The latest version of GeoDa integrates with CartoDB.

Resources



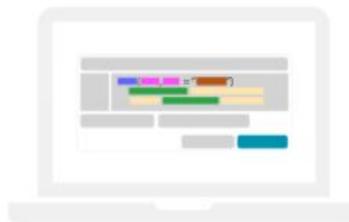
[CODAP](#) is **free open source software for data analysis** built for use in schools. With CODAP, you can explore, visualize, and learn from data in any content area. Our mission is to make data literacy accessible for all students.

Through our National Science Foundation-funded project, we built a commercial-friendly, web-based, open-source data analysis platform, which students anywhere may use for free. (CODAP will always be free!) CODAP's data exploration and visualization tools are based on [research on learning](#), web application development, and user testing. In addition, we've designed and tested our software in collaboration with seven NSF-funded projects, which helps us build curriculum materials for middle and high school classrooms across a variety of subject areas.



Try CODAP

CODAP is easy to use and runs in your web browser. CODAP is (and always will be) free. Share your data with others and bring it to life!



Get the Code

Learn how to create your own plugin in CODAP. Explore our open-source GitHub repository and start incorporating it into your work today.



Sample CODAP Datasets

Browse free CODAP example documents. We've curated datasets for first-time users. Explore to find classroom activities and other downloadable resources.

Celebrating the last day of Hispanic Heritage Month

exploratorium

Celebrate the end of Hispanic Heritage Month by having your students create their own set of **South American-inspired Pan Pipes** for a lesson in sound, pitch, and frequency

Tools and Materials

Pipes of Pan

When you hold a seashell to your ear, you can hear a steady roar.

This simple construction allows you to separate the hum of background noise into some of its different frequencies.



- 11 cardboard tubes from paper towel rolls (other cardboard tubing, or even PVC pipe can also be used, in sufficient quantity to make the pipes described in Assembly Step 1)
- 2-foot (60-centimeter) length of wood board (exact width or thickness is not critical; the board shown in the photos is a piece of ordinary 1 x 3 pine shelving, which is actually 2 1/2 inches wide and 3/4 inch thick)
- Scissors (or a hacksaw or PVC cutter if you are using PVC pipe)
- Tape
- Hot glue gun and glue sticks (not shown)

TOP

Weekly Science News

Need inspiration for a warm-up activity? Try using **LaCuKnoS** as a format to discuss science in the news today.

ScienceNewsforStudents

[Click for article link](#)

HEALTH & MEDICINE

The science of ghosts

Here's what may explain why some people see, hear or feel a spooky presence



People love scary, spooky stories of spectral phantoms. While there's no science to support the existence of ghosts, research does provide plenty of explanations for why we might genuinely sense a supernatural presence.

D-KEINE/E-GETTY IMAGES



"I'd been hearing noises on the ceiling at the same time each night," says Clare Lewellyn-Bailey, who is now a student at the University of South Wales. One night, a big thud prompted her to grab her camera. This was the first picture she took. Other photos she took on that and later nights showed nothing unusual. Does this story make it seem like ghosts exist? Or is the glowing figure a flash of light that the camera accidentally captured?

CLARE LLEWELLYN-BAILEY

Langua

What is *pareidolia*?
Give an example of a time you've experienced this.

Tell us a ghost story from your childhood!

Culture

Knowledge

Have you ever experienced or known anyone with sleep paralysis?

What do you think future research in neuroscience will look like?

Science