



Teacher Newsletter - March 3, 2022

Four Rivers ES – Club Highlight

From SMILE Teacher, Kim McDowall:

Here are some pictures from our Thursday club last week.

We have been working on electrical circuits. We designed and built boats powered by simple circuits with a motor, switch, and power source. Kids had a lot of fun.



Thank you, Kim McDowall, for sharing this electrifying highlight! This is Kim's first year as a SMILE Teacher. Welcome aboard Kim, we're so happy you're part of the team!

If you'd like to share some of your club's awesomeness, email Becca Harver at:
<mailto:rebecca.harver@oregonstate.edu>

Check-Out These Lessons!

**Message from LaCuKnoS
Team Member,
Dr. Francisca Belart**



“We started making decisions on how to manage a woodland landowner property based on different objectives and existing forest in lesson ***Managing Oregon Forests Together***, then we focused on the 60 year old Douglas-fir unit “Mighty firs” that the landowner decided to harvest. They had to make choices on how to buck the trees in order to maximize the volume utilization of the trees, an example of how to perform the bucking within the lesson ***Optimal Tree Utilization***. Next, we will focus on the Broken Top unit, that is in need of thinning. The wood extracted can be used to make cross laminated timber, which is an innovative way to make building materials out of small wood.”

Find these materials, including a new video explaining optimal tree utilization [here](#), on the Winter Teacher Workshop website under Middle/High School Sessions and *LaCuKnoS Forestry*.

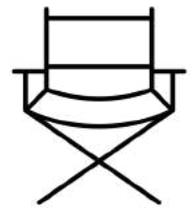
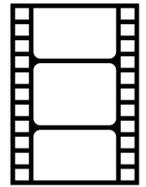
New videos from the Mechanical and Industrial Engineering (MIME) Team!

Learn more about MIME by viewing a brief introduction to their Team and Project. You can also get activity MIME Production System Design Activity instructions and watch the lesson’s video tutorial. The purpose of this activity is to gain experience in collecting data and evaluating the performance of a queuing system in a manual production system through hands-on activities.

Find these materials [here](#), on the Winter Teacher Workshop website under Additional Resources and *Mechanical and Industrial Engineering Capstone Video*.



Upcoming Events



Lights, Camera, Action!

Get pumped for this year's Challenge by watching the theatrical trailer for this classic disaster movie: "Twister," (1996), [Click Here](#).

Virtual Challenge -

Students will work in teams and think about natural disasters that could impact their community. Students will research how natural disasters could affect the food supply and will create a plan to continue to provide food for their community. For the final showcase, students will create a low-budget disaster movie trailer or a presentation featuring their food security plan.

Important Dates -

Materials will be mailed to schools: week of March 14 – 18

Teacher Professional Development: week of March 28 – April 1

Three weeks of prep time to do challenge activities in clubs: April 4 – 22

Final Showcase: week of April 25 – 29

May Teacher Workshop -

May 6 and 7 at Oregon State University

We look forward to seeing you in person at the May Teacher Workshop! Registration will open on March 6. Stay tuned for a workshop schedule, as well as travel and accommodation information.



There's still space!
Teachers, apply by March 6.

Help inspire STEM confidence in underserved middle school and high school students!



Dear STEM Educator, Mentor, or Youth Advocate,

We invite you to apply for the Society for Science Advocate Program, which provides a \$3,000 stipend and training to an individual (teacher, scientist, counselor, or mentor) who agrees to serve as an advocate for a minimum of 3 additional students from traditionally underrepresented groups to transition them from conducting scientific or engineering research (science fair-type) projects to completing applications to STEM research competitions. There are four different types of Advocates, which allow both beginners and more advanced applicants to further expand their capabilities to support student research competition participation.

Many students doing science research are not aware of the myriad of opportunities that are attainable by submitting their work to competitions. Just completing the rigorous application process can inspire confidence in their scientific abilities and lead them to consider a STEM career. Many competitions provide monetary awards for post-secondary education and can boost a student's chance of acceptance into the college or university of their choice. Too few students from traditionally underrepresented groups are presented with these opportunities and often lack the know-how to successfully enter.

For eligibility information and to apply for the Advocate Program, [Click](#). Advocates must already have a formal role with students completing research projects. This program is sponsored by Arconic Foundation, Intel, the Jack Kent Cooke Foundation, National Geographic, and Regeneron.

Upcoming RET opportunity Summer 2022!

Apply in March and April. Positions will be decided in May. To apply, email: lindsay.millward@oregonstate.edu

FIELD RESEARCH DIRECT TO YOUR CLASSROOM



1 FUNDED POSITION WITH TRAVEL SUPPORT AND STIPEND



JOIN US IN THE MOJAVE DESERT AND AT OSU



HELP US DESIGN CURRICULUM TO BE TESTED BY THE SMILE NETWORK

We are excited to announce a 6 – 8 week NSF Research Experience for Teachers (RET) opportunity. Teachers will work with a disease ecology research team at Oregon State University who study desert bighorn sheep in the Mojave desert of southern California. We plan to assist teachers in translating their RET experience into STEM education curricula and activities.

For more information please contact...

Lindsay Millward (lindsay.millward@oregonstate.edu) and Dr. Brianna Beechler (breebeechler@gmail.com)

No prior scientific research experience is necessary. Minorities and people from underrepresented groups are especially encouraged to apply.

OREGON CAREER FAIR ²⁰²²

Connect your Students *virtually* to Oregon Professionals
Hosted by five STEM Hubs across Oregon



Agriculture,
Food &
Natural
Resources



Arts,
Information &
Communications



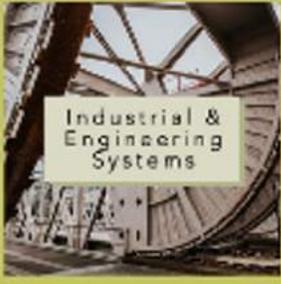
Business &
Management



Health
Sciences



Human
Resources



Industrial &
Engineering
Systems

MARCH 7 - 11

- Middle and High School Students
- Career Inspiration
- Live Virtual Chats

FREE EVENT

[CALENDAR OF SESSIONS](#)

25 SESSIONS!

All Six CTE Career Clusters

[VIEW LineUp & SignUp](#)

Create profile in [OR Connections](#)

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Carbon Activity Spotlights

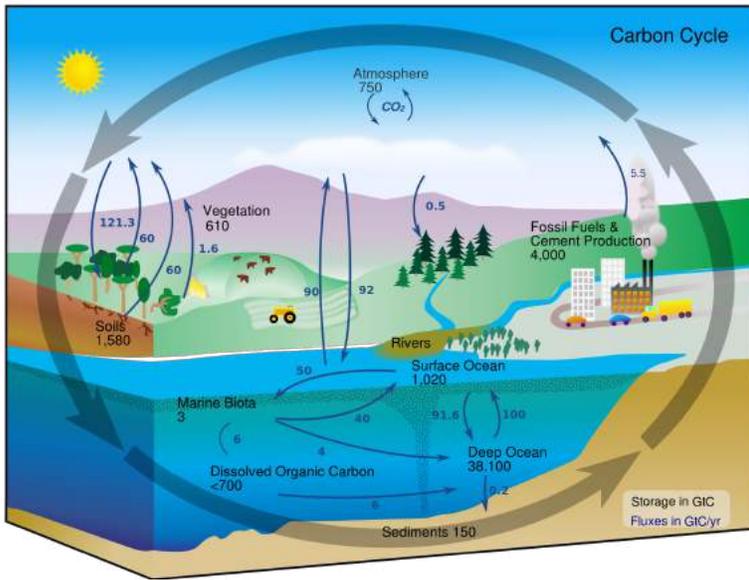
Carbon Cycle Game

Subjects: Biology, Climate Change

Grades: 4 - 5

In this lesson, students will simulate a molecule of carbon's movement throughout various locations within the carbon cycle. Students will learn about chemical and biological processes that move carbon around.

[Click Here](#) for a link to all the resources you'll need.



Carbon Footprint

Subjects: Bioenergy, Ecology, Climate Change

Grades: 9 - 12

Everyone has a carbon footprint and it is highly dependent on lifestyle choices such as transportation, diet, and purchases. This activity will help students understand the effect of their life choices on their carbon footprint. It will also help them recognize the lifestyle choices available to them that would lower their carbon footprint. Additionally, students will also be asked to critically think whether the options for lowering their carbon footprint available are actions that they are willing to take.

[Click Here](#) for link to all the resources you'll need.



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