



CCW Virtual Tours of South & Central Kitsap School District & MacDonald-Miller Facility Solutions Programs

In early January 2022, West Sound STEM Network (WSSN) hosted a virtual program visit for Career Connect Washington (CCW) leadership and our region’s legislators to Central and South Kitsap school districts and MacDonald-Miller Facility Solutions to visit three career connected learning programs. First stop was Olympic High School and teacher Katie Staker for an overview and tour of the Biomedical pathways program and a discussion of current projects, demo equipment and career pathways for students.

The group moved on to South Kitsap High School to meet Construction and Manufacturing Instructor Jeff Winn and observe his boat building class. Several SKHS students joined Jeff in a Q&A session to talk about their projects, how they became interested in their CTE career pathway and how they felt their experiences would positively affect their futures and career choices.

Finally, the group engaged in a discussion with Wheeler Pratt, a recently graduated Bremerton High School student enrolled as a Registered Apprentice in the Washington State Registered Controls Programmer (Youth) Apprenticeship. Nearly finished with his 2,000-hour program, Wheeler shared what it was like to earn wages while training with a journey-level training supervisor, manage his initial assignments while completing classwork, both in a virtual environment, and transition to full-time work after graduating.

The visitors were highly engaged with presenters during the tour and enthusiastic about their experience in observing the programs. A big thank you to the teachers and students who shared their time, and special thanks to CTE Directors Mark Anderson and Sara Hatfield, South Kitsap Superintendent Tim Winter and industry partner Perry England of MacDonald-Miller for making it all happen!



Photo: Central Kitsap School District



Photo: South Kitsap School District

Teaching Digital Privacy Stewardship

WSSN, in partnership with Western Washington University, offered a new computer science/cybersecurity STEM Café: *Exploring Digital Privacy Through the Use of Games*, designed to demystify digital privacy and digital privacy education and show teachers how to introduce their students to safe online and digital practices.

Teachers learned to play *Digital Privacy Detectives*, an interactive and customizable decision-based web game, digitally designed to provide insight into how we teach and transform socially negotiated digital privacy norms. Teachers were given digital access to the game for use in the classroom and an opportunity to examine the *Digital Privacy Detectives* lesson plans designed for middle or high school students. Also built into the café was time to network and share STEM-integrated experiences for students, as well as examination of other online digital privacy games to round out the rich toolkit developed to cover this vital topic.



Career Pathways in Washington’s Forests

WSSN, in partnership with Pacific Education Institute, offered a new STEM Café: *Forest Management in the West Sound and Olympic Region*, providing an opportunity to explore the wide array of teaching materials available about Washington State forests and the many aspects of modern forestry management. Teachers enhanced their ability to bring forestry education and career pathways to their students by engaging in collaborative discussions around using the educational materials in their classrooms.

Café activities included an interactive forestry management simulation and a panel featuring forestry leaders of public and private land including Merrill Ring, Washington State Department of Natural Resources, Rayonier and others. Teachers gained an understanding of the perspectives and activities of different forestland owners and managers and learned about the dual-credited CTE Forest Framework and Youth Engaged in Sustainable Systems (YESS!) opportunities. The program also highlighted other related career pathway programs available for their schools.

REPORT HIGHLIGHTS:

Virtual Program Tours in Central & South Kitsap

NASA Satellites & Origami

Cyber Camps with WWU

On the Horizon...

STEM Cafés:

Icy Worlds, March 10th

Controls Technology, April TBD

Snap Circuits, May TBD

Hidden Figures Book Study, May 2nd & June 6th

Ocean Observatories Workshop, May 20th & 21st

COSTAR (computer science) Summer Workshop,
June 27th & 28th

NESSP (NASA) Summer Workshop,
June 29th & 30th



Newest Teacher Cohort Engages in Ocean Science

Regional K12 teachers participated in the first of three 2-day workshops in West Sound STEM's newest professional learning cohort centered around the University of Washington's Ocean Observatories Initiative (OOI) via their Regional Cabled Array (RCA) data.

Teachers in the workshop engaged in the first phase of developing and implementing cloud-based educational packages using RCA data that address ocean acidification, seismic activity at Axial Seamount and along the Cascadia Subduction Zone, and climate change.

Goals for the cohort include partnering with industry experts to provide a cloud-based platform for teachers and students to utilize OOI data and visualizations in the classroom for inquiry-based learning. These co-created complete educational packages, designed to increase teacher and student core knowledge of marine-centered science, will be available nationwide to build teacher capacity via an innovative partnership that includes committed collaborators from diverse sectors.



Column in collapsed area from the 2011 eruption at Axial.

Photo Credit: UW OOI website

Measurements Matter!

Regional teachers explored the construction industry and other skilled trades at the January 27th virtual STEM Café: The Building and Construction Trades. Partnering with the Center of Excellence for Construction and South Kitsap High School Construction and Manufacturing Instructor Jeff Winn, WSSN welcomed a skilled trades panel of industry experts and engaged teachers in an interactive design challenge and hands-on measurement exercise.

Panel experts provided an opportunity to discuss industry trends and the high-demand career pathways available to students. In one exercise, using supplies mailed ahead of time, Jeff Winn shared techniques for ensuring measurement accuracy using a tape measure and little-known tips and tricks teachers could use with students in their classrooms. "For example," Jeff explained, "most people don't notice that every 16 inches on a tape measure, the numbers are red. It's so measuring out where studs are placed for a wall is easy and quick."

NASA, Origami & Satellites...

Thirty-four teachers engaged in a STEM space science problem-based learning challenge on January 11th at the virtual STEM Café: "Cosmic History—Our Solar System to the Most Distant Galaxies with the James Webb Space Telescope (JWST)."

Using a technique called transmission spectroscopy, the observatory examines starlight filtered through planetary atmospheres to learn about their chemical compositions. By applying scientific reasoning and analyzing ultraviolet and visible light data, teachers explored how EMS data is used to determine the composition and relative redshift of distant galaxies.

Teachers designed their own classroom challenge by applying aspects of origami art to simulate the way NASA and ESA scientists design satellites for launch into space. Teachers learned how to introduce their students to JWST, participated in discussions focused on strategies for providing access for all students, and gained insight into the many career pathways at NASA.



Contact: Dr. Karen Borders, Executive Director
West Sound STEM Network
borders@skschools.org | (360) 874-6286—Office

Notes:

WSSN offered an additional opportunity for teachers to attend the popular virtual STEM Café: Tides and Currents on January 31st. Partnering with instructors from the Northwest Maritime Center, teachers explored how tides and currents work, how they affect the world around us, and learned about the many career pathways available in Washington's maritime industries.

WSSN supported Virtual Field Trips for districts in partnership with the Pacific Science Center. So far in 2022, six schools participated in 26 field trips, where a total of 961 students explored topics like Planetary Geology, Astronomy and Technology in Space. Sign-ups for later in Spring total more than 1,300 students—and more schools signing up each week!

Improving Financial Aid completion rates in Washington to improve access to higher education continues to be a major focus. In January, WSSN provided in-person Navigators through high school career centers and planned a virtual, family-focused FA event in February.

WWU Cyber Range graduate students are partnering with WSSN to bring K12 Cyber Camps to our region's school districts in Spring and Summer of 2022.

WSSN hosted a statewide meeting with partners Project Lead The Way & WSU on Jan 12th to introduce the Biotechnician Assistant Certification Exam (BACE) expansion program to regional employers and other potential partners.