



OREGON
DEPARTMENT OF
EDUCATION



Organization

Backbone Organization: Oregon State University
Counties in Region: Clatsop, Coos, Curry, Lincoln,
Tillamook, & coastal portions of Douglas & Lane
Sq. Miles in Region: 7,207
STEM Hub Director: Kama Almasi
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By the Numbers

School Districts	21
Students	25,839
Educators Participating in PD	375
Educator Hours in PD	4,781
Students Participated in Programs	4,966
Hours of Programming Offered	1,610
Student Hours in STEM Programs	34,377

Building Blue and Green Economy Pathways Through Regional Collaboration

In late 2024, the Oregon Coast STEM Hub received a strategic grant to strengthen collective impact efforts on the southern Oregon coast, focusing on blue- and green-economy career pathways. Rather than working in isolation, this initiative has activated a broad regional network—schools, libraries, nonprofits, higher education, tribes, and industry partners—multiplying impact beyond what any single organization could achieve.

Hiring a dedicated South Coast Coordinator has been central to this progress. Working directly in Curry, Coos, and coastal Douglas counties, the Coordinator builds partnerships shaped by community priorities, expanding career-connected learning and place-based education opportunities.

These relationships drive diverse programs. Four student groups have engineered GPS-enabled miniboats with student-wired sensors; three vessels are at sea sending real-time data, with three more underway. Library collaborations created a monthly youth STEM club, while partnerships with Surfrider Foundation and Pacific High School expanded water-quality monitoring through the Blue Water Task Force. Community co-development has strengthened educator learning. Nature journaling events and a long-term facilitator institute engaged 22 coastal educators, expanding local capacity for continued work. Through genuine community-centered partnerships, the Hub is building a more resilient, opportunity-rich future for the south coast.



Strengthening Equitable Math Education Across the Oregon Coast

The Oregon Coast STEM Hub has expanded its mission beyond career-connected learning to strengthen equitable math experiences for coastal students and educators. Recognizing math as a gateway to opportunity, the Hub focused on data reasoning and high-quality instructional practices that elevate student achievement through rigorous, relevant mathematics.

This year, the Hub delivered seven long-term professional development programs reaching hundreds of educators statewide. The Ambitious Math Teaching cohort, partnering with Teachers Development Group, provided 12 weeks of virtual training for 34 middle and high school educators on making math more engaging and intellectually rich. Data Trailblazers, a collaboration with Central Oregon STEM Hub and Dataspire, helped 14 coastal middle school teachers integrate math and data reasoning across disciplines.

For elementary educators, Data Decoded trained 37 K–5 teachers on helping young learners collect and communicate with data, blending math with art, science, and social science. Twenty-seven secondary teachers joined the High School Data Reasoning Collective, refining coursework for grades 8–10.

The Hub co-led Mindset Math, engaging approximately 90 K–5 teachers—40 from the coast—in growth-mindset-based instruction, expanding to middle school in 2026. Five STEM Hubs are also advancing Math training, helping K–8 teachers reach all learners through meaningful, visual mathematics.

Together, these efforts build a stronger, more equitable math ecosystem for Oregon's coastal students.

Oregon Coast Renewable Energy Challenge: Building Blue Economy Pathways



As Oregon's only STEM Hub with a dedicated blue-economy focus, the Oregon Coast STEM Hub addresses unique needs of rural coastal communities. Local data show too few coastal students enter high-skill, high-demand fields—particularly the blue and green economies driving our region. To close this gap, the Hub builds clear pathways exposing students early to marine, coastal, and renewable-energy careers while equipping them with essential STEM skills.

The Oregon Coast Renewable Energy Challenge, a signature career-connected learning event running over a decade, exemplifies this approach. In 2025, participation surged to nearly 275 students from grades 3–12, reflecting growing regional interest and expanded district engagement.

Throughout winter, students design and build devices generating electricity using solar, wind, or wave energy. They test, refine, and rebuild systems repeatedly, developing knowledge in engineering, circuitry, renewable technologies, physics, and data analysis. Their work culminates each March at a dynamic competition hosted at Oregon State University's Hatfield Marine Science Center, where students race turbines, calibrate solar collectors, and compete in wave-tank trials.

Nearly 50 industry volunteers—from energy companies, engineering firms, research labs, and utilities—mentor students and serve as judges, providing authentic workforce exposure. By connecting hands-on skill development with regional career opportunities, the Challenge helps coastal youth envision futures as engineers, scientists, and blue-economy professionals.