



OREGON  
DEPARTMENT OF  
EDUCATION

# LANE STEM

## Organization

Backbone Organization: Lane ESD  
Counties in Region: Lane  
Sq. Miles in Region: 4,722  
STEM Hub Director: Gabriel Gellon  
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## By the Numbers

School Districts	15
Students	41,979
Educators Participating in PD	199
Educator Hours in PD	3,015
Students Participated in Programs	583
Hours of Programming Offered	37
Student Hours in STEM Programs	3,033

## Scaling Elementary Computer Science Through Peer-Led Innovation

Lane STEM is expanding equitable access to computer science education across rural Lane County through an innovative, scalable model. In previous years, Lane STEM partnered with award-winning technology teacher Corey Culp to develop a K-5 computer science curriculum in McKenzie School District. Following successful implementation, Culp benchmarked the "McKenzie model" for replication in other districts.

The model has now expanded to Mapleton and is being introduced to Fern Ridge and Junction City, with a long-term goal of bringing computer science to every elementary student in Lane County. Lane STEM is also collaborating with Coast STEM Hub to export the model beyond the region.

The program's strength lies in its accessibility and sustainability. Elementary students spend a few hours annually learning coding fundamentals, taught by high school students under the guidance of a high school teacher. This peer-led approach proves extremely affordable for elementary teachers in terms of schedule and preparation time while captivating younger students who see peers in action. The model creates a sense of accomplishment throughout the school community.

Success requires alignment among district authorities, high school and elementary teachers, and administrators—all of whom have embraced the initiative enthusiastically. Lane STEM facilitates teacher collaboration, provides opportunities for idea sharing, and supplies necessary resources including Chromebooks and activity materials when needed.

## Transforming Math Education Through Systemic Pathway Innovation

Lane STEM is leading systemic reform to address inequity in math education by creating diversified K-12 pathways relevant to workforce development and real-life problem-solving. Our major achievement is developing and piloting a Modernized Precalculus course blueprint that eliminates the year-long Algebra 2 prerequisite—a breakthrough that is an key integral part of the Oregon Math Project's 2+1 model directly supporting detracking efforts and providing more students an equitable path to high school Calculus. A Summer Institute engaged 52 high school teachers and 16 higher education faculty from across the state, and the course has been successfully piloted in six of our region's schools.

Building foundational skills for future workforce needs, our K-5 Data Science Summer Institute provided nearly 100 elementary teachers with professional development focused on creating engaging lessons using Universal Design for Learning principles. This comprehensive approach—from elementary data science foundations through redesigned high school pathways—ensures Oregon's math education system becomes more equitable, relevant, and robust from kindergarten through graduation.



## Connecting Rural Students with STEM Careers Through University

An innovative partnership between rural Lane County schools and the University of Oregon is opening new career horizons for students in communities with limited access to STEM professionals. The initiative emerged from a convergence of needs: rural districts seeking professionals to expose students to diverse career pathways, and passionate University of Oregon graduate students eager to engage youth not typically exposed to scientific careers. Collaborating with UO's STEM Core program, led by Bryan Rebar, Lane STEM created a team of visiting young scientists who facilitate authentic conversations about life in science. Graduate students from bioengineering, quantum optics, computational population genetics, and muscle regeneration share their experiences, helping students envision their own potential STEM identities and sense of belonging in these fields.

The response has been overwhelmingly positive across six rural Lane County schools. Students report feeling engaged, respected, and inspired by these interactions. Lane STEM is now formalizing the collaboration to expand the program to additional STEM fields and more schools, ensuring rural students have meaningful access to career exploration opportunities.