

August 2026

2026-2032 STEM Education Plan

The STEM Education Landscape Today

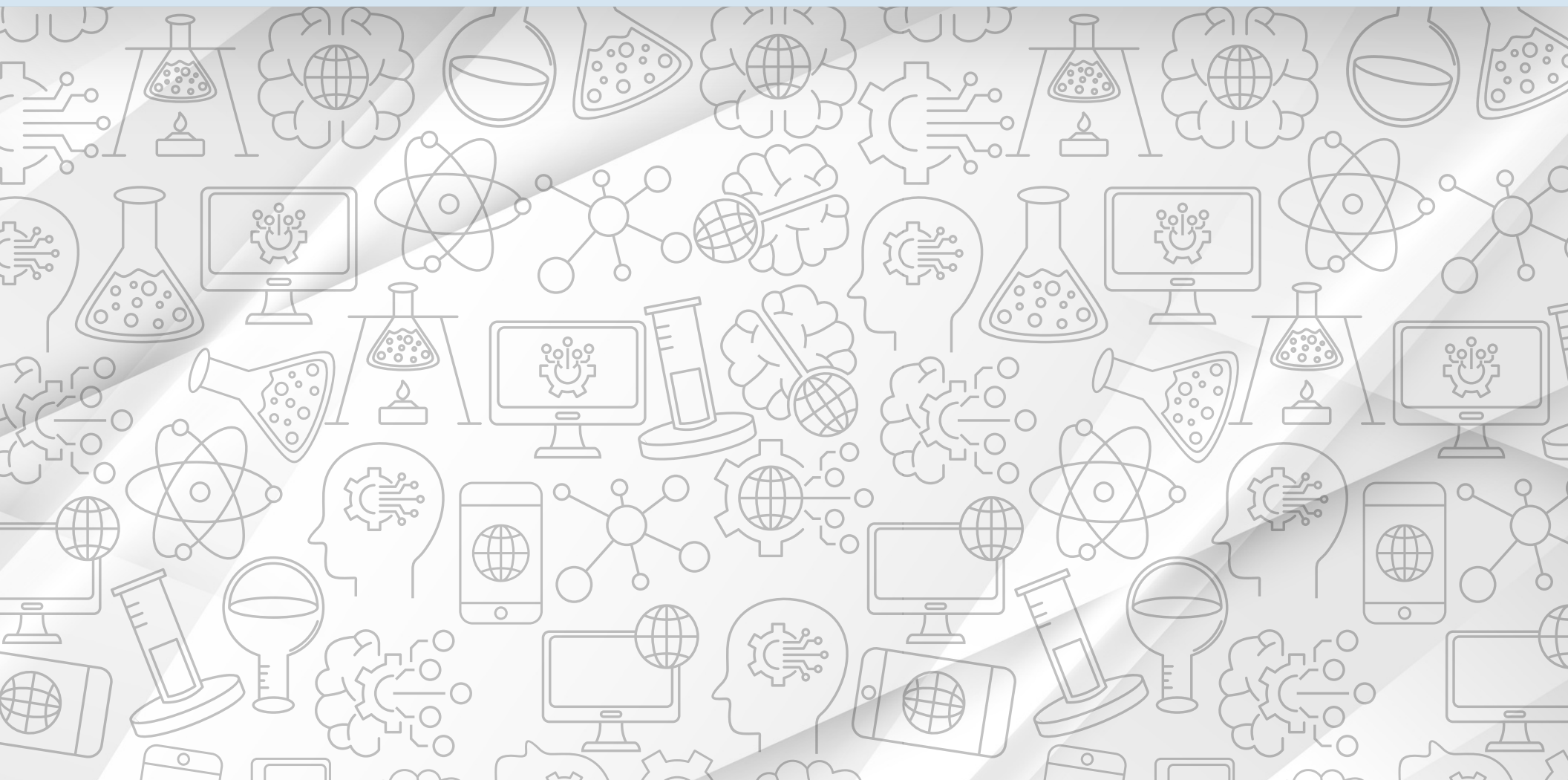


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Letter From The Chair

Oregon stands at a pivotal moment.

Rapid technological change, evolving workforce demands, and the increasing importance of innovation in every sector of our economy are reshaping the opportunities available to our students and communities. These challenges are real, but they are also an invitation to think boldly about the future we want to create.

Since its establishment by the Oregon Legislature in 2013, the STEM Investment Council has provided strategic leadership to strengthen STEM education, expand opportunity, and align learning with Oregon's economic and community needs. As chair, I am inspired by the collective commitment of educators, industry leaders, community partners, families, policymakers, and our statewide network of Regional STEM Hubs who all share a common belief: Every Oregonian deserves access to engaging STEM learning experiences that prepare them to thrive in a rapidly changing world.

This STEM Education Plan does several important things:

- **It places learners at the center of our work.** The plan focuses on ensuring that all students—regardless of geography, background, or circumstance—have access to engaging STEM experiences that foster belonging, build confidence, and open pathways to future success.
- **It connects education to opportunity and builds the foundation for lifelong success.** The plan aligns learning with career-connected experiences, industry-recognized credentials, and pathways that prepare learners for high-wage, high-demand careers while also helping them become informed and engaged citizens.
- **It prepares Oregon for a digital future.** The plan advances equitable access to digital literacy, artificial intelligence literacy, computer science, and emerging technologies so that every learner can participate fully in Oregon's future economy.
- **It reinforces a statewide systems approach.** Through Oregon's STEM Learning Ecosystem and a collective impact framework, this plan recognizes that no single organization can achieve these outcomes alone. Progress depends on coordinated, collaborative action, shared accountability, and sustained partnership among the many organizations that support learners.

As we developed this plan, we sought to build on more than a decade of statewide STEM leadership while creating a clear roadmap for the future. The result is a plan that is ambitious, actionable, measurable, and built around Oregon's strengths.

I am especially excited by the spirit that shaped this work. Across the state, I have seen examples of partnership, creativity, and determination that demonstrate what is possible when we invest in learners and communities. This plan reflects those shared aspirations and provides a framework for turning them into lasting impact.

This is the right plan for this moment.

Rita Hansen

Chair, Oregon STEM Investment Council

STEM Education Plan: Executive Summary

Oregon's 2026-2032 STEM Education Plan establishes a shared direction for strengthening STEM learning and creating meaningful opportunities for learners across the state. The plan builds on Oregon's existing strengths, including dedicated educators, strong regional partnerships, engaged communities, and a statewide network of STEM Hubs. It also responds to a changing economy and the growing importance of problem-solving, collaboration, digital literacy, and other skills that help learners thrive in school, careers, and their communities.

Oregon will continue to advance this work through a statewide STEM Learning Ecosystem that brings together schools, districts, Regional STEM Hubs, higher education, employers, workforce partners, community organizations, families, and state agencies. Using a collective impact framework as its theory of change, these partners can align resources, strengthen relationships, learn from shared measures, and contribute according to their unique roles. No single organization can achieve the outcomes of this plan alone.

Equity and shared accountability are embedded throughout the plan. Oregon commits to look beyond participation alone and consider access, belonging, pathway progression, and outcomes to understand where the STEM ecosystem is working well and where additional support is needed. The 2026-2032 STEM Education Plan is both a statewide framework and a call to shared action. Over the next six years, partners will use this information to strengthen partnerships, align investments, and expand effective practices. Together, these efforts will create opportunities for every learner to participate fully in Oregon's communities, workforce, and future.

This Plan Centers Four Priorities

- 1 Belonging in STEM:** Advance equitable outcomes and increase diversity in STEM by expanding access, strengthening belonging, and recognizing the strengths and experiences learners and communities bring to STEM education.
- 2 Math and Science Foundations:** Strengthen core mathematics and science knowledge and skills through high-quality instruction, meaningful learning experiences, and strong support for educators.
- 3 Pathways to Career:** Connect learning to future opportunities by expanding equitable access to career-connected learning, work-based learning, credentials, and pathways into high-wage, high-demand careers.
- 4 Digital Future:** Prepare learners and educators for Oregon's digital future by strengthening digital literacy, artificial intelligence literacy, computer science learning, and access to emerging technologies.

PART 1: THE WHY

Purpose, Vision, Mission, and Values

Purpose

The STEM Education Plan creates the shared direction and collective commitment Oregon needs to build future-ready Oregonians.

Vision

We envision a future where every Oregon learner experiences meaningful opportunities to explore their interests, develop their talents, and build STEM knowledge and skills, ultimately empowering students from all backgrounds to thrive in a rapidly changing world.

Mission

The mission of the STEM Education Plan is to align resources, strengthen partnerships, improve student outcomes, and support inclusive STEM pathways for every learner.

Values

Asset-Focused Learning

Students, educators, families, and communities bring valuable strengths, lived experiences, cultural knowledge, and expertise that enrich STEM learning. These assets strengthen learning environments and support meaningful engagement with STEM. Students thrive when learning experiences affirm their identities, honor their cultures and languages, and connect to their interests and aspirations. Educators contribute professional expertise and trusted community relationships that support student learning and belonging. Families and community partners bring important perspectives and experiences that deepen learning and strengthen connections between STEM, schools, and communities. High-quality instructional materials and learning experiences build on these assets by connecting rigorous STEM learning to students' lived experiences. When STEM learning reflects and values the strengths learners bring, students are more likely to see themselves as capable contributors, problem-solvers, and STEM learners.

Opportunity and Exposure

Every student deserves access to hands-on, meaningful STEM experiences and multiple entry points into STEM learning. Before being asked to choose a pathway, students should have opportunities to explore, discover, and connect STEM to their interests, communities, and future aspirations. Exposure to a broad range of STEM experiences, including career-connected learning, work-based learning, community partnerships, and applied learning opportunities, helps students understand the relevance of STEM in their lives and expands their awareness of the possibilities available to them.



Photos Courtesy of (Top to Bottom): Lane STEM Hub, Northwest Regional STEM Hub

Student Engagement, Inspiration, and Empowerment

Consistent with the 2021–2025 Plan, this plan foregrounds student engagement as a core goal. Inspiration and empowerment are meaningful outcomes in their own right, not simply steps toward academic achievement or workforce participation. A student who sees themselves as a capable STEM learner, who feels empowered to ask questions, take risks, persist through challenges, and contribute their ideas, has already experienced an important form of success. By fostering curiosity, confidence, belonging, and agency, STEM learning can help students develop lifelong dispositions that support learning, leadership, and community participation.

Future-Ready Skills and Job Creation

Our students are not just future employees; they are future innovators, entrepreneurs, problem-solvers, and job creators. Oregon's economy depends on individuals who can apply knowledge, think critically, collaborate across disciplines, and respond to complex challenges. To cultivate these capacities, students need access to High Quality Instructional Materials (HQIM) and learning experiences that emphasize problem-based learning, real-world applications, and career-connected experiences. Alongside strong foundations in mathematics, science, and technical skills, students benefit from developing creativity, adaptability, communication, collaboration, and leadership skills that prepare them to contribute to thriving communities and a dynamic workforce.

The values outlined above create the conditions for collective impact by establishing a shared commitment to equity, collaboration, accountability, and continuous improvement. The five pillars of a thriving STEM ecosystem provide the mechanism for putting those values into action. Together, they offer a common framework for aligning partners, coordinating efforts, measuring progress, and advancing meaningful outcomes for learners and communities across Oregon.



Photo Courtesy of: South Metro Salem STEM Partnership

Creativity Drives Innovation

Innovation occurs at the intersection of technical knowledge and human creativity. Oregon's STEM ecosystem values opportunities for students to engage in design, creation, storytelling, artistic expression, and collaborative problem solving alongside STEM learning. Through resources such as the STEAM Toolkit, educators can leverage arts-based approaches with STEM-Integrated spaces that strengthen both technical competencies and the durable skills needed for success in an increasingly complex and AI-enabled world. This includes creativity, communication, teamwork, resilience, cultural competence, self-regulation, design thinking, and personal agency.

The Five Pillars of Thriving STEM Ecosystems

These values form the foundation of our approach and are carried forward through a coherent theory of change. This theory is grounded in a STEM Learning Ecosystem framework, which ensures these values are reflected in practice across the system.

STEM Learning Ecosystems¹ represent a transformative approach to STEM education and workforce development, bringing together cross-sector partners to create authentic and immersive learning opportunities. Five key pillars form the foundation of this approach, including: Partnerships, Systems, Teaching & Learning, Measurement, and Workforce.

These pillars, informed by years of research and practical experience, guide the strategic direction, define the core components of our theory of change, and serve as a roadmap for transforming STEM education and preparing learners for the challenges and opportunities of tomorrow.



PARTNERSHIPS CREATING SPACE FOR COLLABORATION

We join education, business, and community together to transform STEM learning.



SYSTEMS ARCHITECTING STEM ECOSYSTEMS

We support communities in building strong STEM Ecosystems that work for everyone.



TEACHING & LEARNING REIMAGINING STEM LEARNING

We redesign STEM learning that sparks creativity and innovation, and build future-ready skills.



MEASUREMENT MEASURING COMMUNITY IMPACT

We measure how our work strengthens communities and improves learning outcomes.



WORKFORCE BUILDING FUTURE- READY TALENT

We support career-connected learning by building bridges between education and workforce partners.



These icons will be featured later in the document to signify when these pillars are addressed. Be on the lookout to observe how we weave them throughout the content.

Why STEM Matters Now

Oregon's students are curious, capable, and full of potential, and Oregon's economy needs exactly what they have to offer. At its heart, STEM is an approach to teaching and learning that invites students to ask real questions, investigate meaningful problems, collaborate across disciplines, and connect what they learn to the world around them. When students learn this way, they develop not just knowledge but the habits of mind that serve them across every subject, every challenge, and every stage of life, including the next one they step into after graduation.

This kind of learning is not a specialized track for some students. It is what all students need to thrive in a challenging and changing world. Increasingly, it is what Oregon's labor market demands. When learning is grounded in curiosity, inquiry, and real-world relevance, students engage more deeply, see themselves as capable thinkers, and develop the confidence to take on complex problems, whether those problems show up in a classroom, a community, or a career.

Today's careers, and those emerging in the future, require strong problem-solving, adaptability, collaboration, and technical reasoning, the very capacities that high-quality STEM education develops. Many of the state's highest-wage, highest-demand career pathways, such as healthcare, advanced manufacturing, construction, natural resources, architectural and engineering services, computer systems design, utilities, and other critical sectors, rely on these same skills.

This strategic plan is acronym-agnostic. Whether you call it STEM, STEAM, STREAM, STEMM, METS, i-STEM, e-STEM, TEAMS, S2TEM, MESHT, or another associated acronym, Oregonians generally agree on the fundamental principles and values put forward in this STEM Education Plan.

STEM, as an approach to teaching and learning, makes this possible by breaking down the walls between subjects and connecting learning to students' lives, communities, and the workforce opportunities that exist around them, including pathways that may not require a four-year degree but do require strong foundational skills, industry-recognized credentials, and the adaptability to keep learning on the job.

A Decade of Building Toward This Vision

Oregon has been building toward this vision since 2015, when the first STEM Education Plan set the foundation for a statewide commitment to transforming how students learn and to better prepare them for their futures. This third iteration of that plan reflects a decade of progress, partnership, and learning. It also reflects a deeper understanding that, while schools are at the center of student learning, the habits of mind and ways of learning that STEM cultivates do not stop at the doors of schools or universities. They carry learners forward into technical training, apprenticeships, and the workforce, which means the systems that support this kind of knowledge and skills acquisition must extend beyond the school walls as well.

By strengthening these systems, Oregon is preparing learners to examine, analyze, and solve complex, real-world problems in their lives, building the kind of critical thinking and adaptability that extends far beyond the classroom. This preparation not only equips students to navigate change, but also positions them to step into the careers that are driving the state's economy forward.

This vision supports a future where all Oregonians, regardless of background or zip code, have access to the knowledge, adaptability, and skills needed to pursue opportunity, achieve family-sustaining wages, and contribute to the vitality of their communities.



For further context on STEAM Education, see Oregon's [STEAM Toolkit](#)² and explore [Why STEAM Matters Now](#).

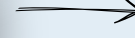
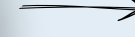
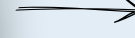
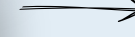
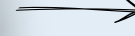
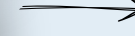
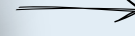


The STEM Education Landscape Today

STEM education empowers students to use their strengths, creativity, and curiosity to solve problems and explore new ideas. Through meaningful learning experiences, students develop the skills and confidence to navigate complex challenges, contribute to their communities, and pursue a wide range of future pathways. STEM learning opens doors to continued education, rewarding careers, and opportunities to shape Oregon's future.

Shifting Away From

- Isolated subject instruction (math/science taught separately)
- Emphasis on memorization and content coverage
- Limited connection between classroom learning and real-world application
- Uneven access to STEM opportunities across student groups
- Viewing STEM primarily as workforce preparation
- Limited early exposure to STEM
- Educators working in isolation
- Limited support for educator STEM practice
- Focus on participation counts alone
- Fragmented efforts across systems (K–12, higher Ed, workforce)
- STEM as a niche initiative



Shifting Toward

- Integrated, interdisciplinary STEM learning experiences
- Emphasis on critical thinking, problem solving, and applied learning
- Career-connected, work-based, and community-relevant learning experiences
- Intentional strategies to close opportunity and attainment gaps
- Balancing workforce, lifelong learning, and civic contribution
- Earlier and sustained STEM engagement beginning in early elementary, including preschool
- Collaborative professional learning communities and networks
- Ongoing, high-quality professional development and industry-connected learning
- Use of indicators, performance targets, and continuous improvement
- Coordinated, cross-sector partnerships and statewide alignment
- STEM as a statewide, system-wide strategy for education and economic vitality



A Coordinated Vision for STEM in Oregon



The 2026-2032 STEM Education Plan builds upon prior efforts while sharpening the STEM Investment Council's goals into clear strategies and measurable outcomes across the statewide ecosystem.

This Plan Serves As

- A guide for future investments
- A roadmap for shared work across the ecosystem
- A call to action for partners to advance coordinated, equity-centered systems change

(Explore [How the STEM Ecosystem Is Structured and Functions](#) for further information on the Ecosystem.)

Key Alignments

- Connects with [Career and Technical Education](#)³ (CTE) pathways that connect learning to real-world application
- Signals broader alignment with statewide postsecondary priorities reflected in the [Higher Education Coordinating Commission's \(HECC\) Strategic Plan](#)⁴

Oregon's Position

With the following in place, Oregon is well-positioned to guide statewide investments, policy, and programming for educators, employers, community organizations, and civic leaders:

- A strong Regional STEM Hub Network
- Integration with CTE and workforce-aligned programs
- An expanded STEM Investment Council representing key sectors

The Challenge

Oregon faces an urgent economic reality:

- Projected workforce gaps driven by industry growth and an aging population
- A need for a more coordinated response across education and workforce systems

Our Approach

- Uses collective impact as its theory of change
- Emphasizes career readiness
- Advances a broader vision of education that develops informed, capable, and engaged citizens

Why STEM Priorities Are Interconnected

The same skills that define strong STEM learning also enable individuals to participate meaningfully in civic life. By connecting learning to real-world applications and expanding access to high-demand careers, STEM serves as both an engagement and equity strategy, preparing students for family-sustaining careers and meaningful contributions to their communities.



For more information on Oregon's and this plan's approach to equity and accountability, please visit Page 20: Equity and Shared Accountability in the STEM Ecosystem.

³ [CTE State Plan](#)

⁴ [Higher Education Coordinating Commission Strategic Plan](#)

Oregon's Future Economy

By 2034, the state is projected to include more than 140,600 new job openings, driven by industry growth and the need to replace workers who leave the labor force or transition to new careers. Employers are expected to have more openings than available candidates. This economic landscape calls for a coordinated, statewide strategy to ensure that individuals are prepared to succeed in a rapidly evolving workforce.

The STEM Education Plan responds to Oregon's workforce needs while maintaining a broader commitment to student success. By connecting learning to real-world challenges, career pathways, and emerging industries, STEM education helps students develop the knowledge, skills, and experiences needed to pursue meaningful experiences, contribute to their communities, and participate in Oregon's economy. This includes preparing learners for futures in healthcare, advanced manufacturing, construction, natural resources, architectural and engineering services, computer systems design, utilities, and other critical sectors.

In doing so, the plan:

- Supports stronger communities
- Expands access to family-sustaining careers
- Helps build a more equitable and resilient Oregon



Photo Courtesy of: Southern Oregon STEM Hub



Sustainability & Resilience

Oregon's future workforce will increasingly rely on individuals who can apply STEM knowledge to real-world challenges related to energy, natural resources, environmental stewardship, infrastructure, and community resilience. STEM learning helps learners build the problem-solving, innovation, and systems-thinking skills needed to contribute to a sustainable and resilient future for Oregon.

HB 3365 further reinforces this integrated approach of Oregon's commitment to helping learners understand and respond to environmental and community challenges through education.



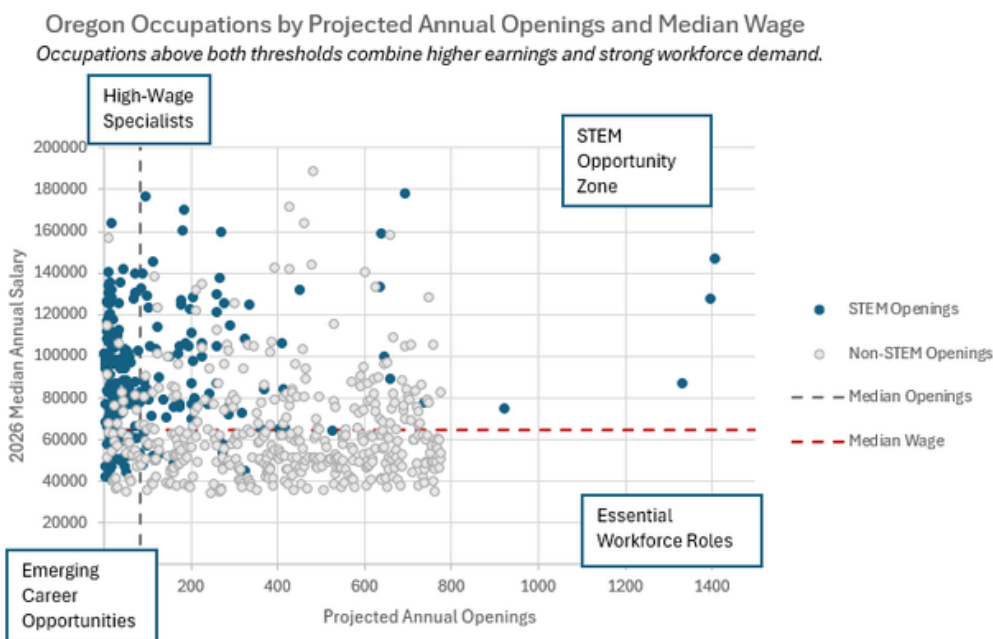
Key Workforce Trends and Opportunities

24,896 current job openings and **228,628** projected job openings in **high-demand occupations**

17,719 current job openings and **85,851** projected job openings in **high-wage occupations**

16,575 current job openings and **79,958** projected job openings in **high-wage and high-demand occupations**

Workforce projections show that many of Oregon's highest-demand and highest-wage occupations are STEM-related, demonstrating the critical role that STEM knowledge and skills play in the state's current and future economy. These trends reinforce the importance of building strong foundations in mathematics and science while providing students with opportunities to apply their learning through authentic STEM experiences and career-connected pathways.



Source: Oregon Employment Department⁵

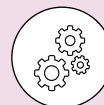
Figure 1. Oregon occupational projections indicate strong demand for STEM occupations, many of which combine high wages with significant annual job openings. These trends highlight the importance of preparing learners with strong mathematics, science, and applied STEM competencies for future workforce opportunities.

High-Growth and High-Demand Sectors



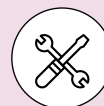
HEALTHCARE

Leading employer in every region of Oregon and is projected to grow by 13% by 2034, adding approximately 40,400 jobs.



ADVANCED MANUFACTURING

24% growth and 3,300 increase in jobs



CONSTRUCTION

10% growth and 11,600 increase in jobs



NATURAL RESOURCES

3% growth and 1,800 increase in jobs



ARCHITECTURAL & ENGINEERING SERVICES

23% growth and 4,300 increase in jobs



COMPUTER SYSTEMS DESIGN

10% growth and 1,700 increase in jobs



UTILITIES

12% growth and 600 increase in jobs

Together, these industries represent a substantial share of Oregon's workforce and provide avenues for long-term economic mobility and generational increases in household income for Oregon youth.

How This Plan Connects to Oregon's Broader Priorities

Oregon's future prosperity depends on a well-rounded, well-prepared workforce, thriving communities, and equitable access to opportunity. This STEM Education Plan contributes to those goals by supporting the priorities reflected in [ODE's strategic plan](#), [HECC's strategic plan](#), [ODE's CTE state plan](#), [Workforce Talent Development Board's](#) initiatives, and regional economic development efforts. Rather than creating separate initiatives, the STEM Education Plan aims to create a coordinating framework that helps align efforts across agencies, sectors, and regions around shared outcomes for learners.

The plan supports and reinforces:

-  **ODE's Strategic Plan & ODE Equity Lens**
A focus on belonging, access, opportunity, and closing disparities.
-  **Oregon Math Framework and HQIM Initiatives**
Support for high-quality, relevant instruction.
-  **Career and Technical Education State Plan**
Career-connected learning, work-based learning and industry-recognized credentials.
-  **Higher Education Coordinating Commission Strategic Plan**
Improved transitions, credential attainment and postsecondary success.
-  **Workforce Development Boards**
Partnerships that connect learners to high-demand industries and local opportunities.
-  **Digital Future Readiness**
Coordinated efforts to strengthen digital literacy, information literacy, computer science education, educator capacity, and future-ready technology skills for all learners.



Photo Courtesy of: Central Oregon STEM Hub



PART 2: THE HOW

The Structure and Function of the STEM Ecosystem

Why an Ecosystem Model

No single school, district, community college, university, or state agency can provide the solution to improved STEM learning. The conditions that shape how a person learns and grows extend far beyond any classroom, into families, communities, cultural institutions, higher education, and the broader systems that support people across their lives.

STEM learning, done well, is lifelong, and the ecosystem that supports it must reflect that reality.

Oregon's 2026-2032 STEM Education Plan is therefore built on an ecosystem model.⁶ Key partners include:

- Schools
- Educators
- STEM Hubs
- Educational Service Districts (ESD)
- Community-Based Organizations
- Employers
- Higher Education
- State Agencies

When these partners work in coordination, sharing goals, aligning resources, and learning from one another, they embody the concept that the whole is greater than the sum of its parts. **Learn More About Ecosystem Partners in the Appendix*

Mapping the Ecosystem: Who Does What, and How They Relate

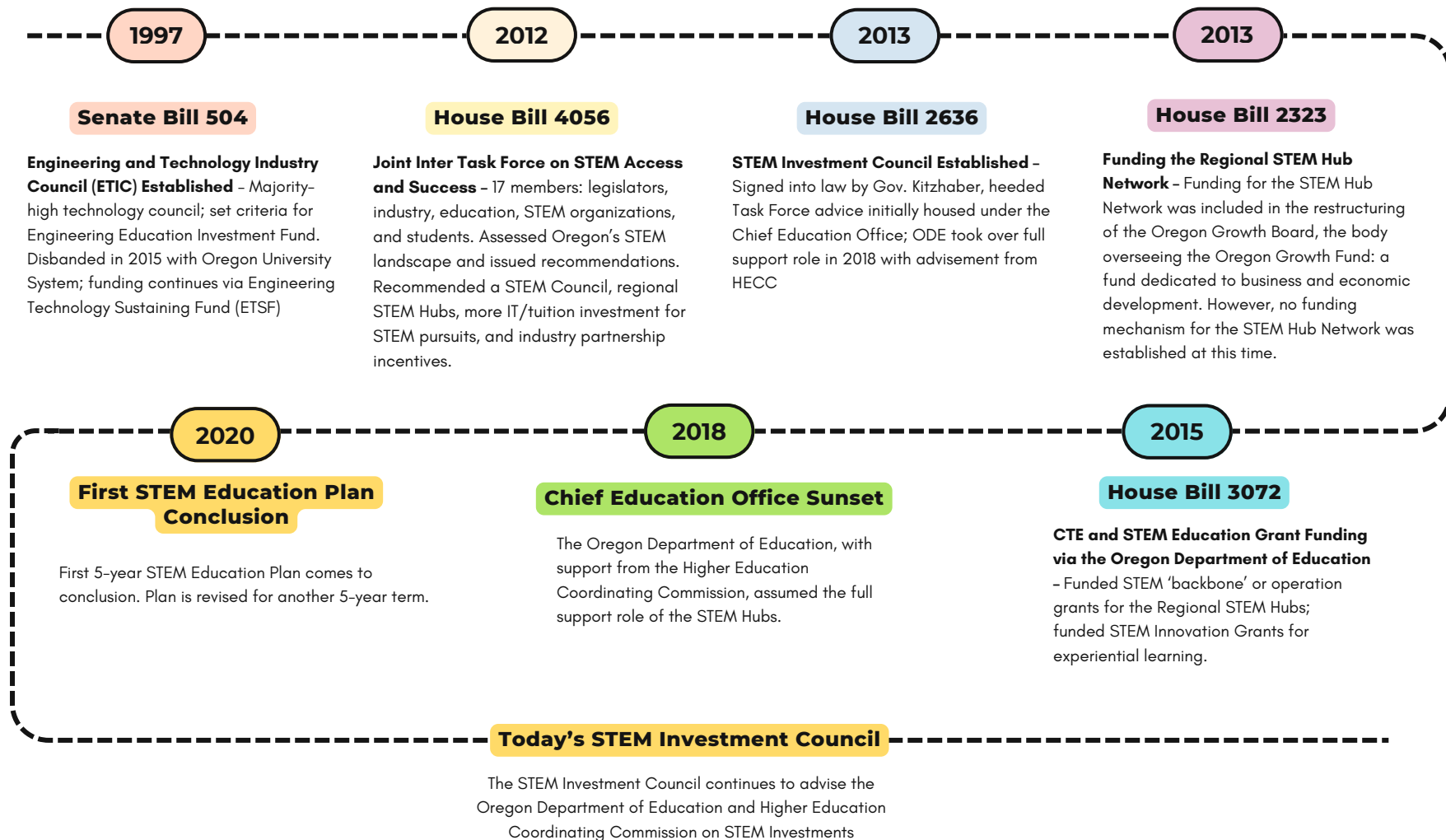
Each actor in Oregon's STEM Ecosystem plays a distinct role. Two structures provide statewide direction. The STEM Investment Council, a volunteer industry-driven body with a legislative mandate, works with the Higher Education Coordinating Commission and the Oregon Department of Education to develop and oversee the state's long-term STEM strategy; this Plan is the product of that mandate. The STEM Investment Council is also charged with recommending STEM-related grantmaking, including funding for the 13 STEM Hubs that make up the statewide Regional STEM Hub Network. ODE funds and coordinates these Hubs, holding them to a shared statewide framework even as each Hub's day-to-day relationships are shaped by its own region's districts, schools, and partners.



Oregon's STEM Infrastructure

For more than 25 years, Oregon's leaders have relied on industry-driven, legislatively established councils and task forces to shape the state's vision for and investments in STEM education. What follows is a timeline of the key pieces of legislation and the entities and initiatives they created, which led to the establishment of the STEM Investment Council. Along with the creation of the Council, Oregon's Legislative Assembly codified the Regional STEM Hub Network and provided state funding to support that network in 2015.

Oregon STEM Timeline



STEM Investment Council

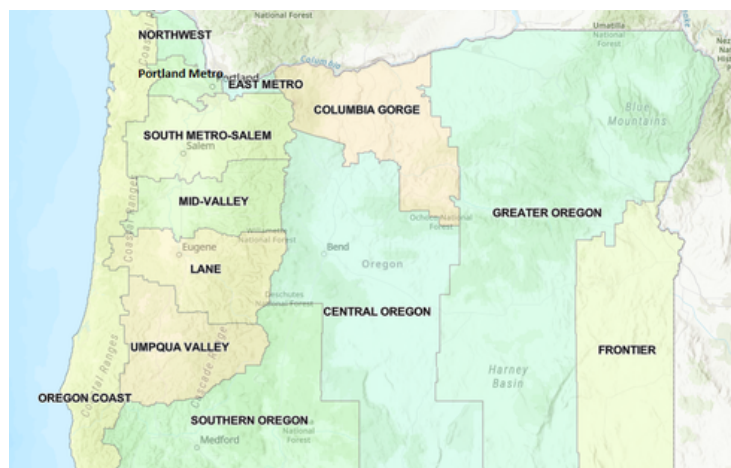
The STEM Investment Council has a legislative mandate to help HECC and ODE develop and implement a long-term strategy to advance the state's STEM goals.

In addition to the development and oversight of a long-term, statewide STEM Education Plan, the Council makes recommendations to the State Board of Education regarding the administration of the STEM Investment Grant Program (ORS 327.380)⁷ and grants to Regional STEM Hubs (ORS 327.372),⁸ and to the State Board and the HECC regarding other investments in STEM education.

The Council is all-volunteer and industry-driven, comprising nine voting members from the private sector, jointly appointed by the Superintendent of Public Instruction and Executive Director of the HECC. Council membership also includes non-voting, advisory members from K-12 and postsecondary education, sector-specific associations, non-profit organizations, representatives of the STEM Hubs, and other key partner organizations.

Regional STEM Hub Network

[Oregon's Regional STEM Hub Network](#) comprises **13 STEM Hubs** throughout the state. STEM Hubs are multi-sector partnerships that link PreK-20 educators, schools, school districts, and ESDs to business and industry, CTE regional coordinators, workforce and economic development, and community-based organizations.



Map of Oregon's 13 STEM Hubs



What STEM Hubs Do:

- Devise local solutions to meet local needs
 - Coordinate regional communication and partnerships
 - Improve student outcomes
 - Build capacity and sustainability for change
 - Encourage and support local and statewide engagement
 - Increase system efficiency through coordination and alignment efforts

STEM Hubs work alongside districts as a support and coordination layer, connecting them to resources, partnerships, and opportunities sometimes at the district level (grant access, regional strategy), and sometimes directly with schools (professional development, student experiences). These partnerships vary widely across the STEM Hub regions, depending upon both district and Hub capacity.

Backbone Infrastructure:

Regional STEM Hubs are Oregon's backbone infrastructure for regional STEM coordination. Their primary role is to:

- Convene partners
- Strengthen capacity
- Align resources
- Create conditions for shared impact

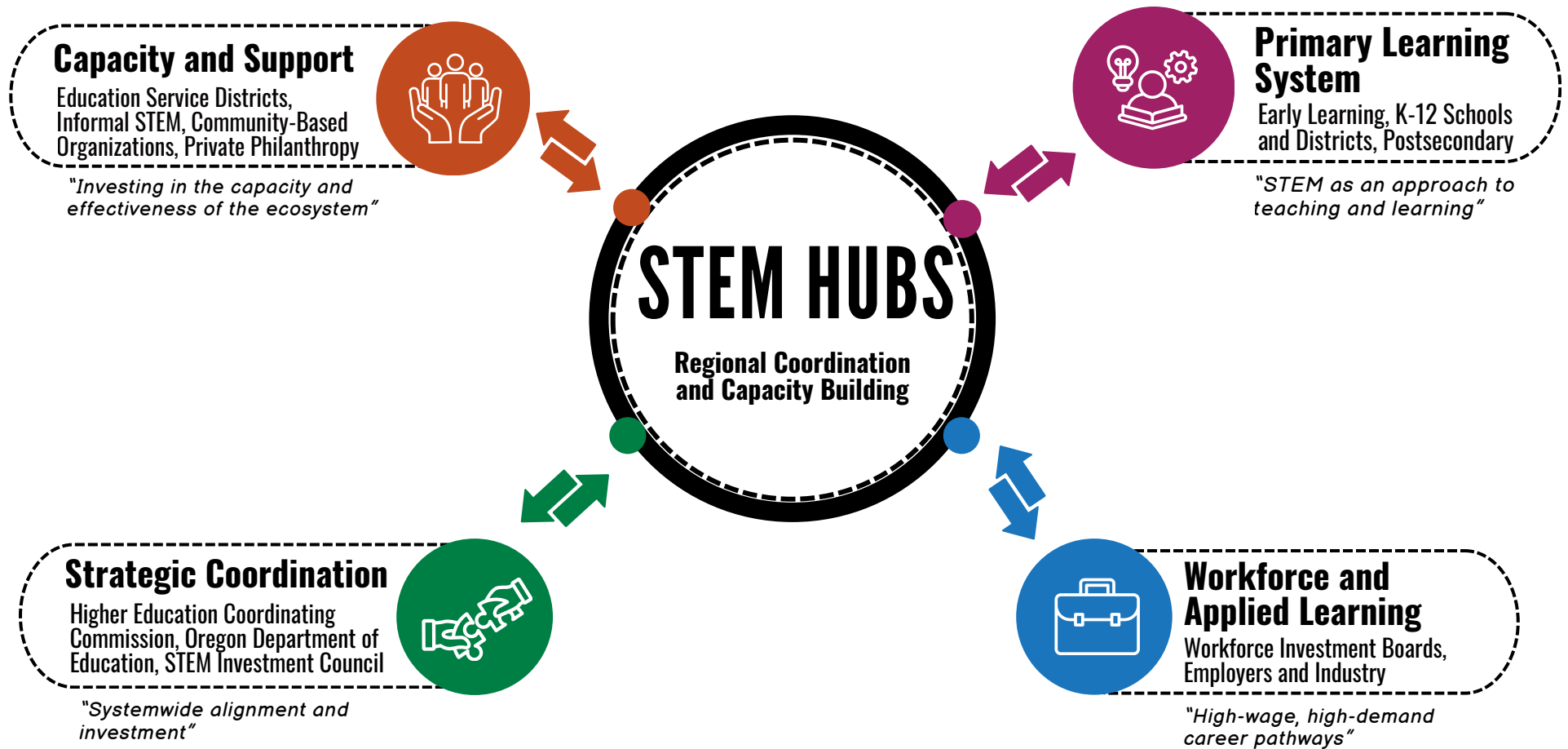
While Hubs contribute to many outcomes, responsibility for student outcomes remains distributed across districts, postsecondary institutions, employers, and community partners.

STEM Hubs relate to other ecosystem partners, ESDs, postsecondary institutions, employers, community organizations, and state agencies by convening, connecting, and coordinating these partners' distinct resources and expertise around district and school needs. Deliberate, region-specific coordination among teams allows Oregon's STEM ecosystem to function as more than the sum of its parts. For more information, explore the appendix, p. 33.

⁷ [Chapter 327 — State Financing of Early Learning and Elementary and Secondary Education](#)

⁸ [Chapter 327 — State Financing of Early Learning and Elementary and Secondary Education](#)

Oregon's STEM Ecosystem



Collective Impact Through Regional Coordination

While each partner contributes unique expertise and resources, the strength of the Regional STEM Hub Network lies in its ability to coordinate these contributions around shared regional goals. By fostering collaboration among schools, higher education institutions, employers, community organizations, and state agencies, STEM Hubs create conditions for collective action that no single organization could achieve independently. This regional coordination helps align investments, reduce duplication of effort, and create more coherent pathways that support student success from early learning through education, training, and employment.

Why Oregon Uses a Collective Impact Approach

Coordination alone is not enough. Oregon's STEM ecosystem includes hundreds of organizations, institutions, and communities, each doing important work. But when that work happens in isolation, without shared goals, aligned strategies, or common ways of measuring progress, even the best individual efforts fall short of the systemic change learners need to be prepared for an ever-changing future landscape.

This plan is grounded in collective impact as its theory of change, the disciplined approach through which these five pillars are put into practice, i.e., “the how.” Oregon’s STEM ecosystem succeeds when organizations work towards shared outcomes. Collective impact provides the structure that helps regional and state partners coordinate efforts while remaining responsive to local needs.

Collective impact fits Oregon's approach because learning does not happen in isolation, and neither does the work of supporting learners. No learner develops in isolation, nor do partners design the best support for students alone. Curiosity is sparked by a great teacher, nurtured by a supportive family, deepened by a community mentor, expanded by industry and/or community organizations, and carried forward by systems that recognize and invest in that potential. This web of support is itself strengthened when the partners within it invest in each other. Collective impact asks the organizations and institutions that make up that web of support to work in genuine alignment, sharing what they know, building on each other's strengths, and staying accountable to the learner at the center.



Photos courtesy of the Oregon Department of Education



Explore the [2025 Legislative Report](#) and visit this [Data Dashboard](#) to learn more about STEM Hub reach across the state.



Equity and Shared Accountability in the STEM Ecosystem

Our Commitment to Equity, Opportunity, and Student Empowerment

The STEM Investment Council is committed to seeing its vision and the state's statutory STEM education goals realized for all student populations; most especially, for students from underserved and underrepresented communities, including Black, American Indian/Alaska Native, and other minority members; rural, low-income, and female students; and students with disabilities. We know that there are severe disparities across demographic groups in access to and success in STEM education and, as a result, in representation in the STEM workforce.

Equity in STEM requires more than removing barriers. It requires taking active, systemic steps to create conditions where every student can succeed, and recognizing that diversity is not only an outcome we are striving toward, but a current strength and asset. Oregon's students, communities, educators, and industry partners bring rich, varied knowledge and experience. When STEM education reflects and includes that diversity, both achievement and innovation are stronger. Achieving equitable results requires both universal access to high-quality STEM learning opportunities and targeted strategies that address persistent disparities experienced by specific student populations and communities.

As we track progress on Oregon's STEM education goals and metrics, we must disaggregate data by race/ethnicity, gender, socioeconomic status, rural/urban status, disability status, and other relevant characteristics associated with disparities in STEM access, participation, and outcomes. In addition to achievement measures, Oregon should monitor indicators of access, participation, belonging, pathway progression, and long-term STEM outcomes to better understand where progress is occurring and where additional support is needed. The state, along with the Regional STEM Hub Network, must employ targeted strategies to shrink access and attainment gaps in STEM. The Council believes that closing these gaps is both a moral and economic imperative.



What Equity Looks Like in Practice

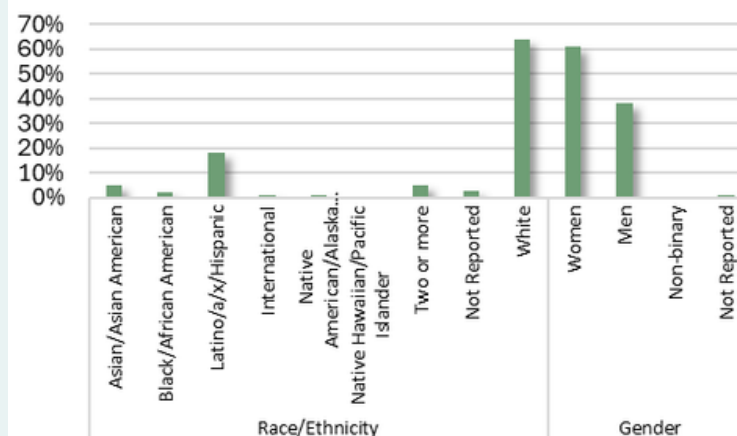
- Access to advanced STEM in rural communities
- Representation in work-based learning
- STEM identity and belonging measures
- Family and community co-design
- Multilingual access
- Local Need Index prioritization



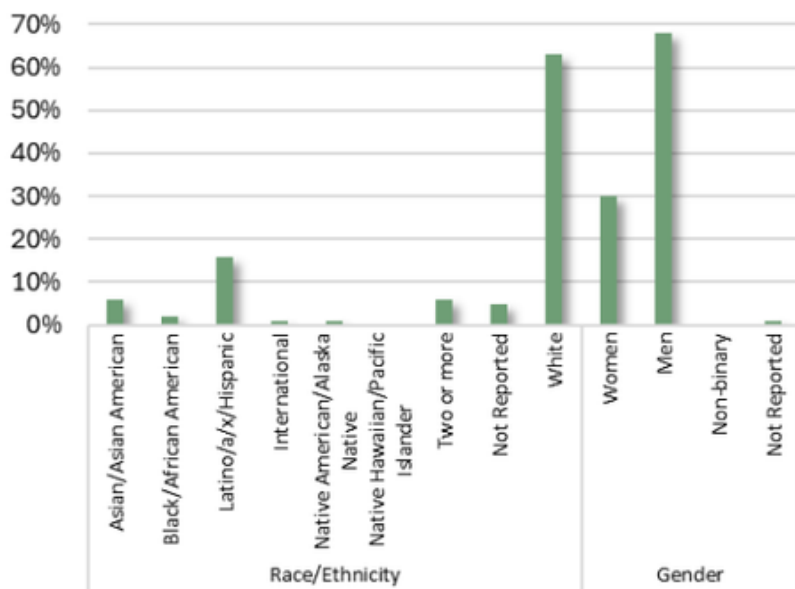
Community College Completions

White Oregonians are overrepresented in STEM Community College completions. While white students earn 60% of all community college degrees and credentials, they earn 63% of STEM degrees and credentials (excluding health professions; 64% including health professions). Conversely, Hispanic/Latinx students represent 21% of all community college completions, but only 16% of STEM completions, excluding health professions, and 18% including health professions. Even more apparent is the overrepresentation of males in community college STEM completions. Significantly more female students complete community college degrees and credentials than male students (57% compared to 41%). Yet just 30% of community college STEM degrees and credentials are earned by female students (68% by males). When health professions are added, these numbers reverse (61% females – 38% males), indicating the high number of females who pursue community college certifications in the medical field.

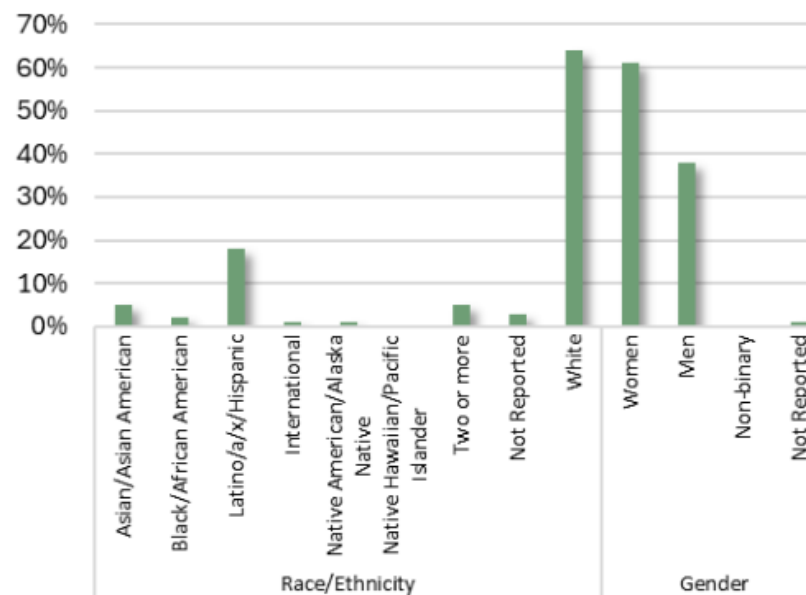
All Community College Majors



% of STEM Majors excluding Health Professions



% of STEM Majors incl. Health Professions



Source: Higher Education Coordinating Commission. (2026).

Figure 2. Community College completions, academic years 2019–20 through 2024–25. State of Oregon.



Photo Courtesy of Columbia Gorge STEM Hub

STEM and CTE

Building on these commitments to equity, exposure, and student empowerment, Career and Technical Education (CTE) plays a central role in translating vision into practice. CTE is an educational framework that prepares learners for high-skill, high-wage, and in-demand careers through rigorous academic content, technical skill development, and hands-on learning experiences.

Modern CTE extends well beyond traditional vocational education; it emphasizes applied science, engineering design, technology integration, data literacy, and problem-solving in authentic industry-aligned contexts. Programs span secondary and postsecondary levels and incorporate credentials, work-based learning, and career pathways.

[CTE](#) plays a critical role in advancing STEM within the educational ecosystem by connecting academic knowledge with real-world applications, workforce needs, and equitable economic opportunity. When intentionally aligned, CTE serves as a delivery system that operationalizes STEM goals across K-12, postsecondary, and workforce sectors.

STEM and CTE are highly complementary and frequently overlap. Both engage and motivate students through real-world, applied learning and

foster creativity, critical thinking, problem-solving, communication, and teamwork.

When STEM and CTE leaders and educators work together, they can:

- Leverage funding
- Broaden students' exposure to a variety of academic and work-based learning opportunities
- Ensure our future workforce possesses the mix of skills and knowledge necessary to catalyze economic development

CTE Programs of Study can provide accessible pathways into STEM fields, particularly for students from historically underserved and underrepresented populations, by connecting STEM learning to relevant, hands-on, and career-connected experiences (Advance CTE, 2015). Similarly, STEM education incorporates elements of CTE, helping students understand the relationship between academic concepts and future careers while providing the foundational knowledge and skills needed to engage successfully in CTE Programs of Study.

A prime example of Oregon's commitment to aligning STEM, CTE, and career readiness is the High School Success program, established through Measure 98 in 2016, and the Student Investment Account, created through House Bill 3427 in 2019.

The High School Success program funds dropout prevention, CTE, and accelerated college credit options. In implementing the program, ODE has encouraged integrating STEM learning within funded CTE Programs of Study. While High School Success focuses on secondary education, building strong STEM foundations in elementary and middle school is equally important to creating a robust pipeline into high school CTE programs and, ultimately, postsecondary education and careers.

Work-based learning is structured learning in the workplace or a simulated environment that provides opportunities for sustained interactions with industry or community professionals that foster in-depth, firsthand experience of the expectations and application of knowledge and skills required in a given career field.⁹

Measuring Progress

Oregon's long-term STEM goals, including increases in mathematics and science proficiency and postsecondary STEM credential attainment, remain important indicators of statewide progress. However, these outcomes result from coordinated efforts across a complex ecosystem that unfold over time. Tracking long-term outcomes alone provides an incomplete picture of whether the system is building the conditions necessary for sustained success.

Connecting priorities to outcomes:

- Each of the plan's four priorities is paired with aligned outcomes that define intended results
- Accompanying strategies identify the contributions of various ecosystem partners, creating a clear line of sight between actions and outcomes
- Together, these elements establish a framework for strategic accountability by clarifying shared responsibilities and expected impacts

Supporting implementation (beginning fall 2026):

- Additional resources will be developed, including logic models, implementation guidance, and common measures articulating the theory of action behind each priority
- These resources will help partners identify leading and lagging indicators, monitor progress, evaluate effectiveness, and drive continuous improvement across all four priorities

How Progress Will Be Tracked

Additional common measures developed beginning in fall 2026 may include:

**BELONGING AND
STEM IDENTITY
INDICATORS**

**ACCESS AND
PARTICIPATION
MEASURES**

**WORK-BASED
LEARNING
PARTICIPATION
INDICATORS**

**POSTSECONDARY
TRANSITION
INDICATORS**

**COURSE
ENROLLMENT**

Shared Accountability Across the Ecosystem

Learners benefit when the adults and organizations supporting them work toward shared goals. Evaluation is a shared responsibility that requires partners to both contribute to and act on a common set of measures.

In practice, accountability is both shared and differentiated. The Oregon Education Accountability Act (SB 141, 2025) and this Plan clarify that accountability is most effective when it is anchored in the work each partner is best positioned to influence. School districts, for example, set their own Performance Growth Targets (PGTs) because of their direct role in instruction and their close connection to student outcomes. ESDs contribute to ecosystem assessment by providing regional insights, data analysis, and evaluation support that help districts and partners understand progress toward shared outcomes.

While districts, schools, and ESDs are accountable for achieving and measuring progress toward local and regional outcomes, STEM Hubs contribute by strengthening the conditions that make those outcomes possible. STEM Hubs play a complementary role within this system. Their accountability is not defined by ownership of specific outcome targets but by the quality, relevance, and impact of the support and possibilities they provide to help partners achieve those outcomes. Hubs strengthen the system by coordinating partnerships, expanding access to resources, and building capacity to help districts and other partners advance their goals.

Achieving the goals of this plan will require partners to work through common outcomes while contributing according to their unique roles and responsibilities.



Continuous Improvement as Shared Practice

Building on this shared approach to accountability, this Plan recognizes that accountability without learning is compliance. It produces reports, checked boxes, and a record of what happened, but it does not, by itself, make the system better. Oregon's STEM ecosystem is committed to something more ambitious: a culture of continuous improvement in which evidence, whether from leading indicators, annual convenings, or honest conversations between partners, is gathered to deepen understanding, strengthen relationships, and improve outcomes for learners.

This distinction is intended to guide how accountability and continuous improvement might function within the Plan. When leading indicators or progress measures reveal gaps, they can prompt shared inquiry into contributing conditions and potential adjustments. For STEM Hubs and districts alike, this suggests using data not only to report progress but to revisit and refine strategies over time.

In this way, accountability helps clarify where things stand, while continuous improvement offers a pathway for partners to respond and strengthen outcomes across the STEM ecosystem. This approach benefits from an environment that supports open and accurate reporting, along with structures that enable learning over time. Regular opportunities for collaboration, shared measurement practices, and clear reporting processes can serve not only accountability purposes but also create possibilities for collective reflection and improvement. Together, these elements can help make continuous improvement in STEM a consistent, systemwide practice as conditions evolve and the ecosystem continues to learn, adapt, and improve.



PART 3: PLAN PRIORITIES

STEM Education Plan Priorities

The STEM Education Plan helps connect Oregon's education, workforce, community partners, and technology efforts around a common purpose: creating opportunities for every learner to thrive. Each priority builds on existing statewide work, while providing a shared framework for improving outcomes and expanding opportunities across Oregon.

Priority 1:

Belonging in STEM

Advance Equitable Outcomes and
Increase Diversity in STEM

Igniting a Sense of Belonging in Every Oregon STEM Learner

Priority 2:

Math and Science Foundations

Strengthen Core Math and Science
Knowledge and Skills for All Learners

Igniting Mathematical and Scientific Brilliance in Every Oregon
Student

Priority 3:

Pathways to Career

Equip Learners for the Career of their Choice
Empowering the Next Generation of STEM Pioneers

Priority 4:

Digital Future

Prepare Learners and Educators for
Oregon's Digital Future

Preparing Visionary Problem-Solvers for Tomorrow's Challenges

Priority 1: Belonging in STEM



OUTCOMES

- ✓ **All Oregon** learners, particularly those from historically underserved communities, have access to meaningful, culturally sustaining STEM opportunities that foster a strong sense of **belonging and inclusion**.
- ✓ **All Oregon** learners develop a **confident STEM identity** and see themselves as **capable contributors** to STEM learning, innovation, and their communities.

STRATEGIES

STEM Hubs/Oregon STEM

- Collaborate with regional partners to co-design, facilitate, support, and implement culturally sustaining STEM engagement opportunities for learners and STEM professional development.
- Measure to continuously improve learner belonging, inclusion, and STEM identity outcomes.
- Support districts to extend High-Quality Instructional Materials (HQIM) to include applied STEM units and place-based connections reflecting local context and assets
- Elevate learner voice and leadership in the design, implementation, and continuous improvement of STEM experiences.

Oregon Department of Education

- Embed the Local Need Index in grant criteria and reporting requirements.
- Identify HQIM that include culturally sustaining, applied learning, and real-world STEM units

Higher Education Coordinating Commission

- Monitor participation and success across STEM education pathways and provide analysis on how to further build equity of access.

Education Service Districts

- Build educator capacity to deliver culturally sustaining STEM learning experiences through supporting and delivering professional learning.

Local Education Agencies (Districts/Schools)

- Implement adopted HQIM with culturally sustaining units.
- Complete comprehensive professional development on culturally responsive STEM instruction.
- Expand equitable access to and participation in advanced STEM learning opportunities.
- Strengthen educator capacity and confidence to foster STEM identity development.

STEM Investment Council

- Direct investments toward advancing equitable STEM access and outcomes using OAR 581-017-0301 through 581-017-0318.

Employers and Organizations

- Expand equitable access to STEM learning and career exploration partnerships.
- Increase representation and diverse role models within STEM learning experiences.

Community Organizations and Families

- Co-design and implement culturally sustaining STEM engagement opportunities for learners with regional STEM Hubs.
- Engage in STEM events to help shape STEM identities and expand access to STEM opportunities.

Priority 2: Math and Science Foundations



OUTCOMES

- ✓ All learners build **strong math and science foundations** through culturally responsive, standards-aligned instruction, while proficiency gaps between historically underserved student groups and their peers narrow
- ✓ Educators report **increased self-efficacy and capacity** to deliver high-quality math and science instruction
- ✓ Families and communities are **active partners** who help build **student confidence and engagement** in math and science learning

STRATEGIES

STEM Hubs/Oregon STEM

- Ensure all students access strong foundational math and science through HQIM, effective instruction, and support from regional STEM Hubs.
- Build educator capacity to deliver engaging, evidence-based instruction that improves student outcomes and fosters STEM identity.
- Connect foundational learning to real-world STEM applications and career pathways.
- Expand equitable access to community-based STEM experiences that enhance classroom learning and student engagement.

Education Service Districts

- Support the effective implementation of High-Quality Instructional Materials.
- Support curriculum-based sustained professional development, PLC facilitation, coaching for HQIM implementation, and administration and educator self-efficacy instruments.

Oregon Department of Education

- Align standards, guidance, and assessment systems statewide.
- Keep standards relevant and rigorous by grounding them in current research and workforce competencies.
- Support the adoption of instructional materials focused on applied learning and real-world problem-solving.
- Ensure effective implementation of HQIM.
- Prioritize collaborative initiatives for STEM outcomes.
- Communicate the importance of math and science HQIM with partners.
- Lead instructional improvement through the Oregon Math Framework and Science Best Practices Guide.
- Provide technical assistance and collaboration for math and science.

Local Education Agencies

- Adopt and implement HQIM with Curriculum-Based Professional Learning aligned to state standards.
- Use evidence and continuous improvement practices to advance equitable outcomes.
- Deliver standards-aligned, high-quality math and science instruction.
- Connect learning to authentic, interdisciplinary STEM challenges.

Higher Education Coordinating Commission

- Strengthen cross-sector alignment and continuous improvement through shared data and feedback loops.

STEM Investment Council

- Coordinate statewide strategic investment (public and private) in math and science education.

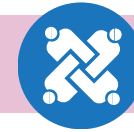
Employers and Organizations

- Host educator externships and co-design real-world learning experiences aligned to grade-level standards.
- Fund and co-design equity-focused math and science initiatives with STEM-focused community partners, including STEM Hubs.

Community Organizations and Families

- Support student confidence and engagement in math and science learning.

Priority 3: Pathways to Career



OUTCOMES

- ✓ More **underrepresented learners earn industry-recognized, postsecondary STEM credentials and degrees** in Oregon's **priority sectors** (healthcare, advanced manufacturing, construction, natural resources, architectural/engineering services, computer systems design/ utilities)
- ✓ Broadened, scaled, and more equitable **career-connected learning opportunities** that prepare a growing share of Oregon learners for **high-wage, high-demand STEM careers**.

STRATEGIES

STEM Hubs/Oregon STEM

- Convene cross-sector coalitions of districts, colleges, workforce boards, and industry.
- Use the Local Need Index to prioritize the expansion of STEM programming in underserved areas.
- Advance innovative and scalable career-connected learning models.
- Strengthen partnerships that connect learners to STEM careers.
- Align regional partnerships with workforce and industry priorities.
- Strengthen alignment between education, workforce needs, and STEM career pathways.

Oregon Department of Education

- Co-lead with the HECC efforts to expand accelerated college credit access.
- Implement the vision for Oregon's College Credit in High School Commitment
- Define statewide expectations for work-based learning and earn-and-learn models.
- Align Oregon Math Framework with state-level CTE and STEM programming.

Higher Education Coordinating Commission

- Coordinate industry consortia to validate priority credentials for the Programs of Study in all five sectors.
- Co-lead with ODE efforts to expand accelerated college credit access.
- Monitor equitable participation and attainment across STEM pathways.
- Expand access to apprenticeship and work-based learning opportunities.

Education Service Districts

- Support districts in student placement in equitable, high-quality work-based learning and career-connected learning experiences aligned to instruction and career pathways that help students explore options and prepare for postsecondary transitions.
- Integrate career-connected learning metrics into accountability systems.

Local Education Agencies (Districts/Schools)

- Offer Programs of Study and accelerated pathways connected to STEM sectors, and provide structured advising to help underrepresented students enroll.
- Use data to improve equitable pathway completion and credential attainment.
- Expand and sustain high-quality work-based learning opportunities.
- Integrate employability skills and career-connected learning into STEM courses.

STEM Investment Council

- Champion statewide investments, policies, and partnerships that advance equitable STEM pathways and career-connected learning, and serve as a conduit between industry, education, and government to inform strategy, strengthen alignment, communicate workforce needs, and encourage employer engagement in expanding career-connected learning opportunities identified in Priority 3.

Employers and Organizations

- Align education pathways with workforce and industry needs.
- Host educator externships and industry immersion experiences, prioritizing placement opportunities in high-Local Needs Index communities.
- Co-design pathway-aligned learning experiences.
- Offer internships, apprenticeships, mentorships, and micro-internships.
- Ensure education pathways reflect workforce expectations and emerging industry needs.

Community Organizations and Families

- Support students in work-based learning opportunities.

Priority 4: Digital Future



OUTCOMES

- ✓ No learner is excluded from participation in Oregon's digital future: all students have **equitable access to digital learning, AI literacy, and computer science pathways**
- ✓ Educators across the state, regardless of background or location, are **confident and supported in using digital tools**, including AI, to strengthen teaching and improve learning outcomes for **all students**

STRATEGIES

STEM Hubs/Oregon STEM

- Ensure all students have access to relevant, evidence-based, foundational computer science learning, including AI and cybersecurity, through HQIM, effective instruction, and engaging experiences.
- Build educator capacity to deliver computer science instruction, including AI and cybersecurity, to improve student learning outcomes and foster STEM identity and belonging.
- Prioritize investment in, and expand equitable access to, digital learning infrastructure and resources.
- Advance equitable access to technology learning opportunities.

Oregon Department of Education

- Ensure computer science standards are relevant to all, rigorous, and equity-focused.
- Support the adoption and implementation of evidence-based computer science HQIM with optional computer science standards.
- Prioritize collaborative, evidence-based, equity-focused computer science initiatives within STEM grants.
- Provide statewide collaboration and communication structures for computer science educators.
- Coordinate with the HECC to ensure K-20 pathway coherence in computer science.
- Provide statewide guidance on digital literacy, including AI literacy. (Note: AI literacy is part of digital literacy.)

Oregon Department of Education (cont.)

- Integrate digital literacy expectations into accountability, reporting structures, and HQIM evaluation and implementation supports.
- Strengthen statewide support to help ESDs & LEAs integrate technology while ensuring instruction remains driven by student needs & learning goals.
- Provide statewide support for digital literacy.
- Provide technical assistance and collaboration structures for digital learning.

Higher Education Coordinating Commission

- Align teacher preparation programs to include digital pedagogy, computer science/computational thinking, and equitable AI integration.
- Support alignment of higher education computer science pathways with workforce needs.
- Support continuous improvement and alignment across the K-20 system.
- Coordinate postsecondary, industry-aligned technology credential frameworks.

Local Education Agencies (Districts/Schools)

- Adopt and implement foundational, evidence-based, high-quality computer science instructional materials with curriculum-based professional learning.
- Integrate digital literacy and responsible technology use across subject areas.
- Embed computational thinking practices in K-12 math, science, and interdisciplinary coursework.
- Monitor equitable access to computer science learning opportunities.
- Build educator capacity to integrate digital literacy, AI, and computer science effectively.

Education Service Districts

- Support district implementation of ODE's statewide guidance on AI literacy, digital literacy, and computer science standards alignment.

STEM Investment Council

- Coordinate statewide strategic investment (public and private) in computer science education.
- Encourage employers to provide technology support identified in Priority 4.

Employers and Organizations

- Inform education pathways through industry expertise and workforce trends.
- Validate technical and employability skill expectations for job placement and employment.
- Expand career-connected learning opportunities in technology fields.
- Support micro-credential development aligned to workforce demand.
- Support educator learning and innovation in digital and AI-enabled instruction.
- Expand educator access to technology-focused professional learning and credentials.

Community Organizations and Families

- Promote community engagement in digital and AI literacy.
- Foster responsible and informed technology use beyond the classroom.

PART 4: LOOKING FORWARD

Conclusion and Recommendations

The 2026-2032 Oregon STEM Education Plan presents a shared vision for ensuring every learner experiences opportunities to discover their interests, deepen their strengths, and apply STEM knowledge in ways that open doors to future possibilities in an evolving world. Achieving this vision requires coordinated action across education, workforce, industry, government, and community partners to create a STEM Learning Ecosystem in which all learners can access high-quality opportunities, see themselves as capable contributors, build strong academic foundations, connect learning to future careers, and participate fully in Oregon's digital future.

To achieve the outcomes outlined in this plan, the STEM Investment Council recommends the following actions:



**ADVANCE EQUITABLE
OUTCOMES AND
INCREASE DIVERSITY
IN STEM**

**STRENGTHEN CORE
MATH + SCIENCE
KNOWLEDGE AND
SKILLS FOR ALL
LEARNERS**

**EQUIP LEARNERS
FOR THE CAREER
OF THEIR CHOICE**

**PREPARE LEARNERS
AND EDUCATORS FOR
OREGON'S DIGITAL
FUTURES**

Recommendations

1

Advance Equitable Outcomes and Increase Diversity in STEM

Partners should collaborate to expand access to culturally sustaining STEM learning experiences that foster belonging, inclusion, and positive STEM identities, particularly for learners from historically underserved communities. This includes strengthening educator capacity, increasing representation and visibility within STEM experiences, engaging families and community members as partners, and using evidence to continuously improve equitable outcomes. By doing so, Oregon can ensure that every learner develops confidence as a capable contributor in STEM.

2

Strengthen Core Math + Science Knowledge and Skills for All Learners

Oregon should continue building statewide capacity to deliver standards-aligned, culturally responsive math and science instruction while narrowing longstanding opportunity and achievement gaps. Achieving this requires alignment across high-quality instructional materials, professional learning, assessment systems, and applied learning experiences. Through strong partnerships among STEM Hubs, state education agencies, local education agencies, Education Service Districts, employers, community-based organizations, and families, learners will be better positioned to develop the knowledge and problem-solving skills necessary for success.

3

Equip Learners for the Career of their Choice

Oregon should continue to strengthen connections between education, workforce systems, higher education, and employers to ensure learners have opportunities to explore, prepare for, and enter high-demand STEM careers. This includes expanding access to career-connected learning,¹⁰ work-based learning,¹¹ Oregon's College Credit in High School Commitment,¹² CTE Industry Recognized Credentials,¹³ and Programs of Study, while removing barriers that limit participation among historically underserved learners. By aligning pathways with workforce needs and supporting equitable credential attainment, Oregon can cultivate the talent needed to support both learner success and the state's long-term economic prosperity.

4

Prepare Learners and Educators for Oregon's Digital Future

Oregon should ensure that all learners have equitable access to digital literacy, artificial intelligence literacy, computer science learning, and emerging technology pathways, regardless of geography, background, or circumstance. At the same time, educators must be supported with the resources, professional learning, and partnerships needed to confidently integrate technology into teaching and learning. Through coordinated investments and shared responsibility, Oregon can build a future-ready education system that prepares all to be lifelong learners able to navigate and shape an increasingly digital world.

¹⁰ [Oregon Department of Education : Career Connected Learning](#)

¹¹ [Oregon Department of Education : Career Preparation and Training \(Work-Based Learning\)](#)

¹² [Higher Education Coordinating Commission : About Oregon's Collaborative Work to Advance College Credit in High School](#)

¹³ [Oregon Department of Education : CTE Industry Recognized Credentials : High Quality Programs of Study : State of Oregon](#)

Moving Forward Together

The success of this plan depends on sustained collaboration, shared accountability, and partners working towards shared goals across Oregon's STEM Learning Ecosystem. The STEM Investment Council calls on ODE, the HECC, STEM Hubs, education service districts, local school districts, postsecondary institutions, employers, workforce partners, community-based organizations, families, and learners to continue to align their efforts around these shared priorities.

The next six years present an opportunity to deepen collective partnerships, strengthen statewide infrastructure, scale practices that improve outcomes, and continuously learn from implementation. By advancing these four priorities together, Oregon can create a more equitable STEM Learning Ecosystem, strengthen learner outcomes from early learning through career, and ensure that every student is prepared to participate fully in their communities, the workforce, and the future of the state.

Implementation Supports Coming in Fall 2026

- Common measures
- Logic models and/or RACI frameworks
- Implementation guidance
- Examples of promising practices
- Communities of practice and partner learning opportunities

2026-27: Baseline & Build →
2028-29: Implement & Scale →
2030-31: Accelerate & Improve →
2032: Evaluate & Sustain.



Photo Courtesy of: Columbia Gorge STEM Hub Students Visiting The Bluebell

Part 5: Appendix

Appendix - Creation of the Plan

Strategic Planning Process

In 2025, the Oregon Department of Education (ODE), in conjunction with the Oregon STEM Investment Council and the Higher Education Coordinating Commission (HECC), began revising Oregon’s STEM Education Plan for 2026-2032. This plan builds on the foundation of the 2021–2025 STEM Education Plan and reflects updated input from educators, employers, and community partners across the state.

Equity Alignment

This plan is grounded in a shared commitment to equity across Oregon’s education system. The STEM Education Plan aligns with the [HECC’s Equity Lens](#) and [ODE’s Equity Lens](#), both of which call on education leaders to center the experiences of historically underserved students, share power and decision-making, and use disaggregated data to identify and remove barriers to access and success. An equity lens informed the development of this plan, with particular attention to learners who have historically faced barriers to opportunity and success, most especially for students from underserved and underrepresented communities, including Black, American Indian/Alaska Native, and other minority members, rural, low-income, and female students, and students with disabilities. The STEM Education Plan outlines how partners across education, workforce, industry, and community organizations can work together to create the conditions to support belonging, opportunity, and learner success for all Oregonians.

Interested Party Engagement

Meaningful input from educators, employers, and community partners was central to shaping this plan. The plan was developed through extensive design sessions that included members from the STEM Investment Council, K-12 education, community-based organizations, STEM Hub Directors, and HECC and ODE staff. Upon completion of various drafts, the plan went out for comment and received:

Engagement Session	Number of Respondents
Fall 2025 Round 1 Engagement	78
Spring 2026 Round 2 Engagement	28
Summer 2026 Round 3 Engagement – final comment survey	17

Survey Assessment

The input gathered through the interested party engagement and review of the plan revealed the following key requests to inform the final development of this strategic plan:

- 1 That the plan includes a high-wage, high-demand career-readiness focus while retaining an educational focus on preparing learners to contribute meaningfully to their communities and society.
- 2 That the plan remain high-level and move the more detailed implementation framework to a later release.

Appendix: STEM Infrastructure Partners

STEM Hubs

STEM Hubs serve as regional conveners that connect education, industry, government, higher education, and community partners. They help coordinate resources, strengthen partnerships, and advance regional and statewide STEM priorities.

Oregon STEM

Oregon STEM is a statewide nonprofit that advances STEM education and workforce readiness through partnership, innovation, and systems improvement. It works with educators, industry, community organizations, state agencies, and STEM Hubs to strengthen Oregon's STEM ecosystem.

State Agencies

State agencies provide leadership, funding, policy guidance, and technical assistance that support STEM education across Oregon. Their coordination and investments help align regional efforts with statewide priorities and goals.

Local Education Agencies (LEAs)

School districts, education service districts, and other local education agencies are central partners in STEM education. STEM Hubs work with LEAs to expand STEM opportunities, support educators, and connect schools with resources and partnerships that meet local needs.

STEM Investment Council

The STEM Investment Council provides strategic leadership for Oregon's STEM ecosystem. By bringing together leaders from education, industry, government, and community organizations, the Council helps guide statewide priorities, investments, and collaboration.

Industry Partners

Industry partners help connect STEM learning to workforce needs and future career opportunities. Through mentorship, work-based learning, career awareness activities, and other partnerships, they provide students with authentic experiences that strengthen engagement and career readiness.

Community Organizations and Families

Community organizations and families help create STEM learning opportunities that extend beyond the classroom. Together, they support student engagement, broaden access to STEM experiences, and ensure learning is connected to local communities and cultures.



Appendix - Key Definitions

Term/Acronym	Definition/Resources
Artificial Intelligence (AI) Literacy	AI literacy refers to the knowledge, skills, and attitudes that enable individuals, especially educators, students, and school leaders, to critically understand, safely use, and ethically evaluate Artificial Intelligence systems and tools in K-12 education.
Asset-Based Approach	An asset-based approach recognizes and builds on the strengths, knowledge, and resources that students, families, and communities already bring to learning, rather than focusing on gaps or deficits.
Belonging	Belonging is the experience of being accepted, valued, respected, and included within a learning environment or community.
Career and Technical Education (CTE)	Career and Technical Education (CTE) is content, programs, and instructional strategies designed to prepare students with technical skills, professional practices, and academic knowledge essential for success in high-wage, in-demand careers.
Career-Connected Learning	Career-connected learning is a statewide framework to guide students through a structured process of career development that is learner-relevant, industry-linked, and aligned with professional expectations.
Collective Impact	Collective impact is a structured approach to collaboration in which organizations from different sectors work toward shared outcomes through a common agenda, shared measurement, mutually reinforcing activities, continuous communication, and backbone support.
Computer Science	Computer science is a basic understanding of computing concepts and practices that is vital for all students. This understanding is intended to prepare them for the realities of a world where computing is ubiquitous, to foster creativity, problem-solving, and critical thinking, and to equip them with the skills to create technology and participate fully in society.

Convergence Education	Convergence education is a transdisciplinary approach where learners apply knowledge and skills by blending multiple disciplines to create and innovate new solutions to complex, real-world problems. It moves beyond simple integration to a level where disciplinary boundaries blur to address "grand challenges."
Culturally Responsive Pedagogy	Culturally responsive pedagogy is defined in OAR 581-018-0500 as "the implicit use of the cultural knowledge, prior experiences, frames of reference, and performance styles of diverse students to make learning more appropriate and effective for them."
Digital Literacy	Digital literacy refers to the ability to use various types of technology responsibly and effectively to complete tasks, access information, and collaborate both in person and online.
Educational Service Districts (ESD)	Education service districts (ESDs) are regional organizations created to provide equitable, high-quality, cost-effective, and locally responsive educational services at the regional level, supporting school districts and ODE in achieving the state's educational goals.
High Quality Instructional Materials	High-Quality Instructional Materials (HQIM) are standards-aligned instructional resources designed to support rigorous, equitable, and effective teaching and learning that are implemented through curriculum-based professional learning.
Industry-recognized Credential	An Industry-recognized Credential (IRC) is a third-party-issued verification of an individual's technical knowledge and skills in a specific career area, recognized by industry, labor, or business as a measure of competence.
Information Literacy	Information literacy is the ability to recognize when information is needed and to locate, evaluate, effectively use, and ethically communicate that information. In STEM, this includes digital literacy, data analysis, and the critical evaluation of AI-generated content and scientific claims.
Interdisciplinary Integration	Interdisciplinary integration is a student-centered pedagogy that prioritizes student questions, ideas, and analyses. It focuses on the process of "doing" science or math, where students investigate phenomena, use evidence to support claims, and develop a deeper conceptual understanding through active discovery. <i>(Explore further within the ODE STEAM Toolkit.)</i>

<u>Linguistic Inclusion</u>	Linguistic inclusion ensures that students who speak languages other than English, including multilingual learners and indigenous language speakers, are fully included and supported in STEM learning opportunities, with their home languages recognized as assets rather than barriers.
<u>Lagging Indicators</u>	Lagging indicators are backward-looking metrics that measure the results of actions, events, or economic activity after they have occurred. They are used to confirm trends, assess the effectiveness of strategies, and evaluate past performance.
<u>Leading Indicators</u>	Leading indicators are metrics that predict future conditions, providing early signals of trends and turning points.
<u>Local Need Index</u>	The Local Need Index (LNI) is a measure for identifying communities with the greatest economic need so that resources and investments can be prioritized to support equitable outcomes.
<u>Logic Model</u>	A logic model is a structured, visual planning and evaluation tool that maps the inputs, activities, outputs, and outcomes of a program or initiative. It shows the if-then relationships between resources, planned actions, and intended results, helping to clarify how a program is designed to achieve its goals.
<u>Phenomenon-Based Instruction</u>	Phenomenon-based instruction (PBI) is a core instructional approach in Oregon’s K-12 science education, aligned with the National Academies’ K-12 Framework for Science Education and the Next Generation Science Standards. It shifts from a traditional “instructional frame” to a sense-making frame, where students engage in making sense of real-world phenomena through science and engineering practices, crosscutting concepts, and disciplinary core ideas.
<u>Programs of Study (POS) or “Approved Career and Technical Education Program”</u>	According to OAR 584-230-0010, an “Approved Career and Technical Education Program” is a CTE program that has been formally approved by ODE to provide students with the necessary technical and academic skills for career success.

Project-Based Learning (PBL)	Project-based learning (PBL) is an instructional method that asks students to undertake sustained investigations as they respond to an authentic problem or question.
RACI Framework	A RACI framework is a project management and collaboration tool used to clarify roles and responsibilities for each task or activity. It ensures that everyone knows who is doing the work, who owns the outcome, who needs input, and who needs to be kept informed.
Regional STE(A)M Hub Network	Regional STE(A)M Hubs are multi-sector partnerships linking P-20 educators, schools, school districts, and education service districts to business & industry, CTE regional coordinators, workforce development, economic development, and community-based organizations.
STE(A)M (Science, Technology, Arts, Engineering, and Mathematics)	STEAM education is an integrated approach to teaching and learning that combines Science, Technology, Engineering, Arts, and Mathematics into meaningful, real-world experiences. Rather than teaching these subjects in isolation, STEAM pedagogy emphasizes inquiry-based problem-solving that reflects how these disciplines naturally connect. This approach fosters applied, experiential, and interdisciplinary learning, preparing students with skills they will use throughout their lives.
STEM Identity	STEM identity refers to the way students and educators perceive themselves in relation to science, technology, engineering, and mathematics.
STEM Investment Council	The STEM Investment Council is a state-level body established under Oregon Revised Statute §326.500 to assist the Superintendent of Public Instruction and the executive director of the HECC in jointly developing and overseeing a long-term strategy to advance Oregon's science, technology, engineering, and mathematics education goals.
STEM Learning Ecosystem	A STEM Learning Ecosystem is a cross-sector network of schools, higher education institutions, employers, community organizations, government agencies, and families that work together to provide coordinated STEM learning opportunities from early childhood through career.
Work-Based Learning (WBL)	Work-based learning is structured learning in the workplace or simulated environment that provides opportunities for sustained interactions with industry or community professionals that foster in-depth, firsthand experience of the expectations and application of knowledge and skills required in a given career field.

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