Connecting to the World of Work
STEM~~, STEAM~~ and CTE

581-017-0301

Definitions

The following definitions apply to 581-017-0300 TO 581-017-033~~2~~3:

(1) "Achievement Gap" means the gap in achievement (state test scores in science and mathematics as well as postsecondary degree attainment in STEM) that often exists between students who are economically disadvantaged, students learning English as a second language, African American, Hispanic or Native American compared to their peers.

(2) "Authentic Problem-Based Learning" means using real world questions, problems, and tasks—often drawn from local community issues and industries—as the focus to drive the learning experiences, deepen understanding, and developing rich contextual connections across a variety of STEM and non-STEM disciplines.

(3) "Career and Technical Education (CTE)" is a comprehensive educational program for students based on industry needs. CTE includes coursework in areas such as health care, engineering, and computer science.

(4) "Community Engagement" means a broad collaboration and participation between multiple sectors of the community for the mutually beneficial exchange of knowledge and resources to identify local needs and contribute to larger conversations on visioning planning which may include, but not limited to parent groups and advocacy groups, industry and STEM agencies, economic and workforce groups, student input, and educators.

(5) "Education service district (ESD)" means an education service district as defined in ORS 334.003.

(6) "Effective STEM Instruction" means the use of evidence-based practices that support interconnected, relevant STEM instruction as stated in definition number one.

(~~6~~7) "Effective STEM Leadership" means identifying schools, school districts, postsecondary institutions, business & industry, student-focused nonprofits and community leadership to support implementing and improving STEM teaching and learning in addition to creating a culture that fosters STEM learning with evidence-based resources. Effective STEM leadership develops an understanding of what effective and interconnected STEM education looks like in the classroom and supports the development of learning environments that empower educators to implement innovative STEM education approaches.

(~~7~~8) “Effective STEM Learning Environments” means supporting student interaction with STEM education during formal and informal settings in ways that promote deeper understanding of real-world complex concepts. Such learning environments need to engage all students in solving complex problems, using highly interactive learning opportunities that create new opportunities for STEM learning across the core curriculum.

(~~8~~9) “Equity Lens” refers to the commitment and principles adopted by the Oregon Education Investment Board to address inequities of access, opportunity, interest, and attainment for underserved and underrepresented populations in all current and future strategic investments.

(~~9~~10) “Postsecondary Institution” means a:

(a) A community college operated under ORS Chapter 341.

(b) The following public universities within the Oregon University System:

(A) University of Oregon.

(B) Oregon State University.

(C) Portland State University.

(D) Oregon Institute of Technology.

(E) Western Oregon University.

(F) Southern Oregon University.

(G) Eastern Oregon University.

(c) Oregon Health and Science University.

(d) An Oregon-based, generally accredited, not-for-profit institution of higher education.

(~~10~~11) “Regional STEM Hub” means a commitment of a group of key stakeholders from different sectors such as, but not limited to school districts, informal education providers, postsecondary institutions, business & industry, student-focused nonprofits, students, families, community members and policy makers to advance state and local educational goals related to science, technology, engineering, mathematics and career & technical education (CTE).

(~~11~~12) “Statewide STEM Network” means a supportive collaboration between and across Regional STEM Hubs to share knowledge, expertise, insights, and leadership to assist other communities in their efforts to create similar STEM partnerships.

(~~12~~13) “STEM Education” means an approach to teaching and lifelong learning that emphasizes the natural interconnectedness of the four separate STEM disciplines. Developing and deepening content knowledge and skills in science and mathematics is the foundation of STEM teaching and learning. The natural connections among science, mathematics and STEM are made explicit through collaboration between educators resulting in real and appropriate context built into instruction, curriculum, and assessment. The common element of problem solving is emphasized across all STEM disciplines allowing students to discover, explore, and apply critical thinking skills as they learn.

(~~13~~14) “STEM Practitioners” refers to individuals engaged in STEM-related professions such as but not limited to, natural resources management, high-tech manufacturing and product development, information technology, industrial design, health sciences, software, scientific research, engineering, data analytics, etc.

(~~14~~15) “Student-Focused Nonprofits” means an organization that meets all of the following requirements:

(a) Is established as a nonprofit organization under the laws of Oregon;

(b) Qualifies as an exempt organization under section 501(c)(3) of the Internal Revenue Code as defined in ORS 314.011; and

(c) Is focused on providing services to students who’s goals or mission are focused on impacting and improving outcomes in STEM education.

(~~15~~16) “Underserved Students” are students whom systems have placed at risk because of their race, ethnicity, English language proficiency, socioeconomic status, gender, sexual orientation, differently abled, or geographic location.

(~~16~~17) “Underrepresented Students” in STEM are from demographic groups who’s representation in STEM fields and industries does not mirror regional and national focus populations specifically, women, African American, Native American, Hispanic and Pacific Islander students which systems have provided insufficient or inadequate balance of opportunity.

Stat. Auth.: ORS 327.820; 2015 OL Ch. 763, Sec. 1 (Enrolled HB 3072)~~2013 OL Ch. 661, Sec. 4 (Enrolled HB 3232)~~
Stat. Implemented: ORS 327.820; 2015 OL Ch. 763, Sec. 1 (Enrolled HB 3072)~~2013 OL Ch. 661, Sec. 4 (Enrolled HB 3232)~~
Hist.: ODE 30-2014, f. & cert. ef. 6-24-14

581-017-0309

Eligibility of Regional STEM Hubs

The Oregon Department of Education shall allocate funds for Regional STEM Hubs based on the following criteria:

(1) The following entities shall be eligible ~~to be the fiscal agent~~ for the Regional STEM Hub Grant:

(a) Existing STEM Hubs,

(b) School districts,

(c) Education service districts as defined in ORS 334.003,

(~~b~~d) Student-focused nonprofit organizations, ~~or~~

(~~c~~e) Postsecondary institutions for the purpose of supporting STEM & CTE education, and

(f) Any of the nine federally recognized Native American Tribes in Oregon.

(2) A Regional STEM Hub must be established by a school district, postsecondary institutions or student-focused nonprofit and is required to include the following additional partners at a minimum:

(a) A School District or ESD,

(b) A Postsecondary Education Partner,

(c) A Student-focused nonprofit; and

(d) An Industry, Business or STEM focused Community Partner.

(3) A Regional STEM Hub must be able to demonstrative that the Hub has the following five key elements:

(a) A common agenda;

(b) Shared measurement systems;

(c) Mutually reinforcing activities;

(d) Continuous communication; and

(e) Backbone support organizations.

Stat. Auth.: ~~2013 OL Ch. 661, Sec. 4 (Enrolled HB 3232)~~ORS 327.820
Stat. Implemented: ~~2013 OL Ch. 661, Sec. 4 (Enrolled HB 3232)~~ORS 327.820; 2015 OL Ch. 763, Sec. 1 (Enrolled HB 3072)
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581-017-0318

Reporting of Regional STEM Hubs

(1) The Department of Education shall develop partnership-reporting requirements for allocation of funds for implementation of Regional STEM Hubs as required by the ~~Oregon Education Investment Board~~Chief Education Office.

(2) The Department of Education, in collaboration with the STEM Investment Council and the committee established under ORS 344.075, shall submit a biennial report to the Legislative Assembly related to distributions made under this section. The report must include metrics that identify how distributions made under this section are contributing to the development of a skilled workforce that is able to secure high wage and high demand jobs.

Stat. Auth.: ORS 327.820; 2015 OL Ch. 763, Sec. 1 (Enrolled HB 3072)~~2013 OL Ch. 661, Sec. 4 (Enrolled HB 3232)~~
Stat. Implemented: ORS 327.820; 2015 OL Ch. 763, Sec. 1 (Enrolled HB 3072)~~2013 OL Ch. 661, Sec. 4 (Enrolled HB 3232)~~
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