



Memorandum of Agreement

Between each Partner Organization as a Member of the
South Metro-Salem STEM Partnership

This is an agreement among and between the signatory partners, who form the South Metro-Salem STEM Partnership, hereinafter called STEM Partnership.

I. About the South Metro-Salem STEM Partnership

The SMS STEM Partnership is a collaborative of community leaders, representing 15 school districts, 7 higher education institutions, 10 industry partners and 13 community organizations, with the vision to catalyze Oregon students to achieve STEM degrees and certificates, and reach Oregon's education goals by increasing the access, excitement and engagement of students in STEM courses and experiential learning.

Vision Statement

The South Metro-Salem STEM Partnership catalyzes Oregon students to achieve STEM degrees and certificates, and reach Oregon's education goals by increasing the access, excitement and engagement of students in STEM courses and experiential learning.

Mission Statement

The South Metro-Salem STEM Partnership will collectively optimize PK-20 STEM education by utilizing a full spectrum of public and private resources and model instructional practices to develop a career ready, diverse, and adaptable workforce that enhances the regional economy and community.

Guiding Principles

The South Metro-Salem STEM Partnership is guided by the following principles:

1. Student achievement will improve when instruction is contextualized by connections to the world beyond school, and integrated, contextualized STEM instruction is incorporated into every district's STEM plans.
2. Collaboration and active participation in the STEM Partnership will provide a forum for sharing effective STEM teaching and learning practices, and leveraging community resources to increase access for teachers and students to STEM teaching and learning resources.
3. Strong bonds among schools, colleges, universities, businesses and community partners will provide sustained enrichment in STEM teaching practices and provide students with advanced educational experiences, career exploration, and mentorship.

Goals and Expected Outcomes

By 2025, the South Metro-Salem STEM Partnership will increase science and math achievement among students in partner districts. The Partners will work to identify common measures of success, consistent with standards that measure the skills necessary for post-secondary success and give



feedback to students, families, teachers and administrators on what students can demonstrate and what skills and knowledge they still need to gain.

Proposed outcomes include:

1. By 2025, increase the percentage of the region's 4th, 8th, and 12th graders that are "proficient" and "advanced" in math as measured by the Smarter Balanced assessment.
2. By 2025, increase the number of STEM college graduates that matriculate from partner schools.
3. Increase participation in STEM activities including electives and out-of-school learning, persistence in STEM academic pursuits, and achievement based on ethnic/cultural and/or socioeconomic background, limited English language proficiency, or gender.
4. Improve Oregon business and industry access to an Oregon-educated STEM talent pool that is highly skilled, motivated and globally competitive.

Purpose & Scope

This Memorandum of Understanding (MOU) is an expression of intent among participants to build and execute a Collective Impact Partnership, hereafter referred to as the South Metro-Salem STEM Partnership, that aligns and facilitates the efforts of Partner organizations for the purpose of transforming science, technology, engineering, and mathematics (STEM) learning and teaching in K-12 elementary, middle, and high schools, aligned with adoption of Common Core State Standards, Next Generation Science Standards, and transformations in post-secondary education.

The Partners will develop measures and track the results of their collective efforts to increase STEM college and career-readiness among K-12 students, with special attention to the aspirations and needs of traditionally underrepresented groups, including students of color, first-generation, and female students. The Partners will work together to identify effective ways to help teachers implement applied, contextualized practices, connected to the world of work, that influence and shape the academic and career aspirations of regional students.

Term of Agreement

This MOU is for a period of one year, and may be extended, modified or amended, through the mutual written agreement of the signatory parties, in order to clarify and formalize roles, responsibilities, time lines, and assurances regarding the scope of work. It is understood by all Partners that the goals and outcomes of this STEM Partnership will only be fully realized through effective leveraging of existing resources, and additional in-kind or financial support for each partner entity to fulfill its commitments, as stated in this agreement.

Definition of STEM

The South Metro-Salem STEM Partners agree that Science, Technology, Engineering, and Math (STEM) fields will be correlated to career opportunities for students in areas such as natural resources,



medical sciences, computer science, engineering, life science, environmental science and physical sciences. Further, we define effective STEM teaching as an integrated approach that recognizes the natural interconnectedness of science, technology, engineering, and math.

Common Practices

The South Metro-Salem STEM Partners agree to engage in a STEM professional learning and leadership community that develops and disseminates effective practices that will increase STEM college and career readiness for students. The common practices include industry involvement in the design and delivery of curriculum, collaborative curriculum design process, project-based learning, student coaching and inquiry, the design process or scientific process, interdisciplinary instruction (integration of subject areas), trans-disciplinary instruction (integrating in and outside school experiences), technological literacy, and ways to bridge STEM education with the workplace.

Strategies

1. **Create a STEM Learning and Leadership Community of teachers and community partners to share effective instructional practices** and integrate science and engineering work samples into common core standards, with contextualized, experience-based teaching and learning methods.
2. **Build STEMOregon.org, a community of mentors, volunteers, STEM programs and events that inspire students, teachers,** and sponsors to highlight the value of STEM activities, connect STEM activities to the classroom, and utilize the region's rich industry and community resources.
3. **Expand accelerated credit collaborations between schools, colleges and universities to raise student achievement** through dual credits, advanced placement, and incentives to attract students into STEM degree paths.

II. Responsibilities of each Partner under this MOU General Partnership Development

1. All signatory partners approve the use of their name and logo for partnership marketing purposes, if any marketing materials shall be provided to each signatory partner in advance for review and approval, if possible, which shall not be unreasonably withheld or delayed.
2. All Partners will co-brand their organizations with the SMS STEM Partnership, using the SMS logo alongside their logos, when appropriate.
3. All Partners will, when appropriate, publicly and internally (within the organization) acknowledge the involvement or contributions of the SMS STEM Partnership and/or other Partners through media releases and public speaking opportunities.
4. Each partner will designate representatives to participate in STEM Hub quarterly meetings and strategy work groups, and to communicate with their respective institutions about the opportunities and mutual benefits of the partnership, including professional development, access to resources, outreach activities, and college-credit partnership programs.
5. Each participating school district commits to increasing the effectiveness of STEM instruction at all educational levels. They will identify three teacher leaders to participate in the STEM



Leadership Team, which includes summer professional development and ongoing leadership team workshops, and to support the professional growth of their teaching staffs.

6. Each participating school district will identify high school courses that could potentially be offered for dual high school-college credits and work with participating post-secondary partners to qualify course for accelerated credit.
7. Each participating post-secondary partner will collaboratively conduct outreach to advisors, teachers, students and parents related to accelerated credit and high school-to-college transitions, with a focus on reaching underrepresented students.
8. All schools will look for ways to integrate more in-school and out-of-school STEM programming, and expand partnerships with community-based STEM programs.
9. Each school district will develop a STEM Plan that describes how the district will expand STEM courses, support teacher professional development, and expand extended-day STEM opportunities for students at all grade levels, using the definition of STEM in this agreement.
10. All partners will utilize the STEM platform, called STEMOregon Connections (stemoregon.com), to expand experiential learning experiences and opportunities for students and teachers, utilizing the expertise of business and community partners.
11. All education partners agree to establish baseline data about STEM achievement in their districts on metrics of mutual agreement and/or as defined by grants or contracts, and identify and track measures of educational achievement to determine if the partnership is providing value to students in their districts, consistent with any applicable laws relating to such data.
12. In performing their respective duties under this agreement, each of the parties will be operating as an independent entity. Nothing contained in this agreement will in any way constitute any legal association, partnership, or joint venture between the parties, or be construed as evidence of a contractual relationship. All contractual relationships related to grant funding will be described in separate legal documents, negotiated between the specific contractual parties.

Individual Partner Roles and Responsibilities

School Districts

Amity School District agrees to work with the South Metro STEM Center and collaborating school districts through:

- Sharing best practices in STEM education.
- Offering instructional materials and resources to partner schools in creating school-wide, team-taught, STEM program.
- Providing educator and student support to Evergreen for STEM-related activities.
- Providing a model for school-wide STEM implementation for small schools.
- Collaborating with partner schools to provide resources, staff development and training to support STEM development and education to all partners.

Canby School District agrees to work with South Metro STEM Partnership and collaborating schools to develop and implement systemic STEM education in grades K-12 in the following ways:

- Share best practices in STEM education.
- Provide STEM partner schools with priority access to monthly Canby technology tours.



- Offer digital and on-line resources to partner schools.
- Provide access to District-sponsored professional development to partner schools.
- Disseminate action research on curriculum, instruction and assessment.
- Collaborate with STEM Center to design professional development for teachers and STEM coaches.
- Host training events and provide space for meetings and professional development.

Central School District 13J agrees to:

- Share best practices in STEM education
- Provide access to district-sponsored professional development with partner schools
- Collaborate with the STEM center to design professional development for teachers and administrators
- Share our integration of STEM activities in the after-school program
- Host training events and provide space for professional development

Dallas School District will:

- Attend the STEM Partnership meetings.
- Participate in the STEM Learning Community with an elementary, middle and high school teacher from Dallas at the STEM Learning Communities.
- Work to develop leadership capacity with Dallas teachers to develop a STEM plan for Dallas and share the results of this work with the STEM Partnership.
- Continually analyze ways to bring more alignment and opportunities for STEM to students in Dallas School District. Share results with STEM partners.

Gladstone School District agrees to work with South Metro STEM Center and partnering schools to develop and implement systemic STEM education in grades K-12 in the following ways:

- Share best practices in STEM education including Robotics, Engineering Technology, Technical Math and Renewable Energy programs.
- Offer instructional materials and curriculum maps as resources to partner schools.
- Provide access to Engineering Technology staff development when possible.
- Host training events and provide space for meetings and professional development.
- Collaborate with partner schools (e.g. West Linn-Wilsonville, Canby & N. Clackamas) in the Clackamas Technical Education Consortium in order to provide resources, staff development and trainings to support STEM development and education to all partners.

Lake Oswego School District agrees to work with South Metro STEM Center and partnering schools to develop and implement systemic STEM education in grades K-12 in the following ways:

- Identify and share effective STEM instructional practices.



- Identify and share STEM instructional materials and resources.
- Collaborate with STEM Center to design professional development for teachers and administrators.
- Host training events and provide space for meetings and professional development.
- Disseminate action research on curriculum, instruction and assessment.
- District will develop a STEM plan

Molalla River School District will:

- Develop business partnerships in the greater Molalla/Mulino area and make them available to other districts.
- Host STEM professional development opportunities.
- Share/collaborate on "best STEM practices".
- Develop CCSS curriculum maps for core subjects with STEM opportunities embedded.

Newberg School District will:

- Identify and share effective STEM instructional practices.
- Identify and share STEM instructional materials and curriculum resources.
- Collaborate with STEM Leadership Team to design professional development for teachers, instructional coaches, and administrators.
- Host training events and provide space for meetings and professional development.
- Provide STEM partner school opportunities to shadow STEM -related student science experiences at schools in our district (grades K-12).

North Clackamas School District agrees to work with South Metro STEM Center and partnering schools to develop and implement systemic STEM education in grades K-12 in the following ways:

- Identify and share effective STEM instructional practices.
- Identify and share STEM instructional materials and resources.
- Collaborate with STEM Center to design professional development for teachers, STEM coaches and administrators.
- Host professional development event.
- Collaborate with partner schools in the Clackamas Technical Education Consortium.

Oregon City School District agrees to work with the South Metro STEM Center and partnering school districts through:

- Sharing evidenced-based and results-based practices K-12.
- Hosting workshops for STEM educators about STEM post-high school and business partnership development.
- Hosting family and community-focused events to promote South Metro STEM activities.
- Provide a location for large events, conferences that may be sponsored by South Metro STEM and Project Lead the Way partners.



- Provide a location for university-based teacher practicum experiences in STEM education.
- Provide training and professional development for Preschool - 3 STEM & Family Engagement activities.

Salem-Keizer Public Schools agrees to work with South Metro STEM Center and partnering schools to develop and implement systemic STEM education in grades K-12 in the following ways:

- Share best practices in STEM education.
- Offer instructional materials and resources to partner schools.
- Provide access to District-sponsored professional development to partner schools.
- Disseminate action research on curriculum, instruction and assessment.
- Collaborate with STEM Center to design professional development for teachers and STEM coaches.
- Host training events and provide space for meetings and professional development.
- Provide a model for a STEM Implementation Plan.
- Organize the STEM Leadership Team.

Silver Falls School District will:

- Provide a representative to participate in STEM Partnerships meetings.
- Participate in the STEM Learning Community.
- Share best site specific and district-wide practices in STEM education including Natural Resources, Robotics, Agricultural Science, Engineering Technology, Health Occupations, Applied Math/Science and Technical Math/Science.
- Host training events and provide space for meetings and professional development.
- Identify and share STEM instructional materials and resources.
- Share practices related to STEM partnerships with other school districts.
- Offer insight and best practice information related to STEM education through CTE programs.
- Disseminate action research on STEM curriculum, instruction and assessment.

Tigard-Tualatin School District agrees to work with South Metro STEM Partnership and partnering schools to develop and implement systemic STEM education in grades K-12 in the following ways:

- Collaborate and share best practices in STEM education.
- Offer curricular materials, best practices in infusing technology in core instruction and curriculum maps as resources to partner schools.
- Provide access to Robotics, Science and Math teachers for staff development when possible.
- Host training events and provide space for meetings and professional development.
- ~~Open the Tigard-Tualatin University System to partner school districts in providing professional development opportunities to teachers. (removed 0915)~~
- Ensure alternative education staff have increased access to professional development in STEM education.



- Ensure alternative education students have increased access to STEM education.
- Endeavor to provide students of color with increased access to high-leverage STEM courses and programs.

West Linn-Wilsonville School District agrees to work with South Metro STEM Center and partnering schools to develop and implement high leverage instructional strategies in STEM education in grades k-12 in the following ways:

- Work to align and offer dual credit courses with our high schools and university partners.
- Further develop a STEM Unit planning framework to integrate scientific and engineering practices.
- Share sample units of study using the STEM unit-planning framework.
- Design and offer STEM studio lesson study workshop series.
- Host events and provide space for meetings and professional development.
- Provide multi-media rich professional development space with remote connectivity.
- Provide access to district sponsored professional development to partner schools.
- Provide real world context for STEM study through CREST- Center for Research in Environmental Science and Technologies.

Woodburn School District agrees to work with South Metro STEM Center and partnering schools to develop and implement systemic STEM education in grades K-12 in the following ways:

- Share best practices in STEM education.
- Offer instructional materials and resources to partner schools.
- Provide access to District-sponsored professional development to partner schools.
- Disseminate action research on curriculum, instruction and assessment.
- Collaborate with STEM Hub to design professional development for teachers and STEM coaches.
- Ensure that minority and economically disadvantaged students have increased access to high-leverage STEM courses and programs.
- Provide real world context for students' study through access to the developing Mill Creek Greenway environmental restoration project with the City of Woodburn.

Community Colleges and ESDs

Chemeketa Community College's will:

- Share best practices in STEM education through a variety of delivery modes and venues.
- Continue and expand dual credit offerings for high school students with partner schools.
- Collaborate with TechStart and other state-wide organizations and schools to host the Oregon Computer Game Challenge (OGPC).
- Host an annual regional math contest with partner schools.
- Collaborate with STEM Center to design professional development opportunities for teachers and STEM coaches, including activities on the Chemeketa campus and those that may include the integration of academic and hands-on learning, technology and engineering content and



teaching strategies.

- Continue to operate the Evergreen STEM Institute at Chemeketa for regional high school Students.
- Share expertise of technology, engineering, science, and math instructors.
- Disseminate professional development, best practices, and resource information to MWEC and STEM partnership schools.
- Identify potential funding opportunities.
- Support the development of STEM Career Pathway programs.
- Expand STEM offerings for High School Partnership students.
- Provide renewable energy and horticulture seminars to regional high school STEM teachers.
- Sponsor renewable energy and agriculture events for regional high school students.
- Sponsor regional high school robotics competition as well as technical support and judging for local robotics competitions.

Clackamas Community College agrees to:

- Provide dual credit opportunities for a variety of STEM related coursework as feasible.
- Provide courses at low cost and waive Advanced College Credit (ACC) fees for students on free and reduced lunch.
- Host Annual Skills contest in STEM related topics for area high schools.
- Provide college instruction for dual credit at the local high school during the regular school day as requested by the high schools and as high school budgets allow.
- Share expertise of technology, engineering, science, and math instructors and best practices in STEM education through a variety of delivery modes and venues.
- Disseminate professional development, best practices, and resource information to STEM partnership school.
- Provide access to resources, services or facilities, as available for meetings/events as appropriate.
- Conduct ongoing outreach to high schools about science, engineering and technology career paths and the preparation needed to succeed in STEM college majors.
- Assist secondary school instructors with the alignment of curriculum, learning outcomes, content rigor and assessment related to STEM coursework.
- Support the development of STEM Career Pathway programs.
- Provide complete two year transfer offerings to four year colleges and OUS universities in STEM related coursework such as:
 - Engineering - Biological, Industrial, Chemical, Civil, Computer, Electrical, Environmental, Mechanical.
 - Business and Computer Science.
 - Science
 - Technology.
- Offer career pathways, certificates, degrees and articulation agreements in career related programs in Health Sciences, Nursing, Renewable Energy, Electronics, Urban Agriculture, and Water & Environmental Technology.
- Support degree partnership programs (dual admission) with Oregon Tech and other university



partners.

Clackamas Career and Technical Education Consortium (C-TEC) agrees to work with South Metro STEM Center partnering schools to support implementing technology and engineering curriculum in their districts in the following ways:

- Offer professional development opportunities that may include integration of academic and hands-on learning, technology and engineering content and teaching strategies.
- Share expertise of technology and engineering teachers.
- Disseminate professional development, best practices and resource information to C-TEC and STEM Partnership schools.
- Identify potential funding opportunities.
- Support the development of STEM Career Pathway programs.
- Provide partnership opportunities between high school and community college.

Portland Community College will:

- Share best practices in STEM education, including curriculum and pedagogy, with partner schools.
- Continue and strengthen dual credit offerings for high school students in partner schools' STEM classes.
- Collaborate with SMS STEM Partnership to create professional development opportunities for STEM educators in partner schools.
- Continue to develop STEM Career Pathways programs.
- Host classes from partner high schools to utilize PCC's living labs such as the Newberg Center Net Zero Building.
- Advise partner schools and collaborate with partner colleges to align STEM course learning objectives, curriculum, and learning assessments.
- Collaborate with SMS STEM partners in identifying opportunities and applying for funding that improve STEM educational offerings and opportunities for students.
- Outreach to high schools to inform teachers, staff, students and families of STEM educational opportunities and careers.
- Host tours of PCC's STEM labs and facilities. Promote community college students' transfer to STEM baccalaureate degree programs.
- Support FIRST Robotics by offering summer robotics camps for high schools students as funding permits.
- Support NASA/Oregon Space Grant Consortium program as it provides teachers and students with mentorships, internships and academic opportunities.



Universities

George Fox University will:

School of Education:

- Offer professional development opportunities to partner school districts on alignment of content area standards (CCSS, NGSS, etc.)
- Provide professional development to in-service teachers in partner school districts with computer science curriculum training
- Involve cross-discipline faculty and students to teach project-based CS content to partner schools with elementary students
- Conduct and disseminate research on the impact of CS curriculum in K-5 classrooms
- Develop college and career culture with local schools by sending out university students to teach CS lessons in conjunction with elementary teachers. Conduct outreach to partner high schools on STEM career paths
- Provide access to resources, facilities, or services when available
- Meet with principals from local schools to recruit additional 3rd-5th grade classrooms to deliver CS curriculum with a phase-in approach for sustainability
- Partner with schools to create pathways for elementary education for clinical practice placements.

Academic Affairs Office:

- Develop partnerships with community colleges to create transfer alignment of curricular courses
- Work with partner secondary schools including community colleges to offer accelerated, dual, and/or transfer credit options

Oregon Institute of Technology (Oregon Tech) agrees to:

- Offer its Oregon Tech OWLS (Opportunity for Work and Learning in STEM) Program to all partner schools, providing dual credit and campus courses for high school students for minimal or no cost, and special privileges, including scholarships to qualified students.
- Advise secondary schools on the alignment of curriculum, learning outcomes and programming with career and college readiness standards, for partner schools.
- Participate in opportunities to develop philanthropic gifts or corporate sponsorships or grant proposals.
- Provide access to resources, services or facilities, as available.
- Involve faculty members to teach contextualized, project-based learning in collaboration with in-service and pre-service professional development.
- Encourage qualified employees to act as classroom speakers, make presentations, and possibly collaborate as instructors.
- Conduct ongoing outreach to high schools about science and technology career paths and the preparation needed to succeed in STEM college majors.
- Conduct a tour of labs and classroom at the OIT Wilsonville campus to orient students to STEM majors and careers in health, engineering, and information technology fields.
- Work with community college partners in articulating courses and programs to ensure transfer



of credits between institutions.

- Support dual enrollment with community college partners.
- Promote STEM Network (STEMOregon.org) programming to faculty, contacts, and partners as appropriate.
- Act as the STEM Hub backbone organization.
- Provide significant in-kind support to the STEM Hub and Partnership.

Pacific University agrees to:

- Collaborate with partner school districts to deliver professional development to K-12 teachers in
- STEM instructional practices
- Participate in opportunities to develop philanthropic gifts or corporate sponsorships or grant proposals
- Provide access to resources, services or facilities, as available
- Involve faculty members in STEM learning in collaboration with in-service and pre-service professional development.
- Provide guidance as a member of SMSP Executive Council

Private Sector Partners

3D Systems agrees to:

- Encourage our employees to participate in the Xerox Science Consultant Program and other similar programs within the South Metro-Salem Partnership districts
- Open our facility to South Metro-Salem STEM Partnership and partnering schools for educational field trips/tours that encourage youth to pursue STEM degrees.
- Encourage engineers and other employees to volunteer their time as mentors and classroom co-instructors, as opportunities are defined by the South Metro-Salem STEM Partnership.
- Provide mentors in support of hands-on learning programs (e.g. FIRST Robotics/ Lego League, Saturday Academy, etc.) and job shadow opportunities for teachers.
- Network with professional associations or organizations to grow awareness of the South Metro-Salem STEM Partnership.

Autodesk, Inc. will:

- Provide paid Summer Internships for high school students that participate in FIRST Robotics.
- Offer free Autodesk SW downloads <http://students.autodesk.com/?nd=down> load center.
- Provide Curriculum and Training videos <http://curriculum.autodesk.com/student/public/>.
- Open our facility to South Metro STEM Center and partnering schools for educational field trips/tours that encourage youth to pursue STEM degrees.
- Encourage our engineers and other employees to volunteer time, as opportunities are defined by the South Metro-Salem STEM Partnership.



- Host "career day" event for students in partner school districts.
- Provide mentors in support of hands-on learning programs (e.g. FIRST Robotics/Lego League).
- Host teacher-training event for how to use Autodesk Inventor and related software in the classroom.
- Offer these activities through September 30, 2015 and determine level of participation year-to-year.

First Tech Federal Credit Union will:

- Allocate scholarship dollars each year for First Tech members and their families that are pursuing STEM based degrees.
- Develop a cause marketing promotion to help educate First Tech members about STEM, encourage volunteering and mentoring.
- Host a STEM learning forum for First Tech members, employees and key business partners.
- Leverage business relationships within the tech community to increase SMS Metro STEM awareness/partnerships.

FLIR will:

- Coordinate and promote STEM Partnership events that display the accomplishments of regional STEM students, which shall be coordinated with STEM Partners thirty (30) days in advance of the planned event.
- Offer field trip opportunities and tours for STEM Partner teachers, schools, colleges and universities which shall be coordinated thirty (30) days in advance of the planned event.
- Provide up to \$2,500.00 in monetary support for the STEM Network Director, and classroom equipment, software or supplies.
- Provide job shadows for teachers, which shall be coordinated thirty (30) days in advance of the planned event.
- Encourage engineers and other technical staff to offer their time for classroom visits, work with teachers, FIRST Robotics teams, and other STEM engagement activities

Garmin AT will:

- Open our facility to South Metro-Salem STEM Partnership for educational field trips/tours that encourage youth to pursue math, engineering and science degrees.
- Encourage our engineers and other employees to utilize stemoregon.org to connect with hands-on STEM volunteer opportunities.
- Collaborate with STEM Center to review professional development for teachers and STEM coaches.
- Host training events and provide space for meetings and professional development



Intel will:

- Provide access to the Intel®Teach Program and Teachers Engage web platform for consideration as a possible communications platform for the South Metro-Salem STEM Partnership.
- Make available to South Metro-Salem STEM Partnership school districts: opportunities for student internships via the BEC, career exploration sessions and Intel Oregon Information Center outreach programming consistent with the college and career readiness outcomes for the partnership.
- Encourage employees to volunteer their time as mentors and classroom co-instructors, as opportunities are defined by the South Metro-Salem STEM Partnership.

Legacy Meridian Park Medical Center will:

- Open our facility to partner schools for educational field trips/tours that encourage students to pursue degrees in medicine, science and technology fields.
- Host "career day" events for students in partner school districts.
- Encourage staff to speak at in-class "career day" events.
- Encourage employee usage of stemoregon.org to connect employees to STEM volunteer opportunities.
- Offer summer internships and scholarships to students pursuing degrees in medicine, science and technology fields.
- Offer students in partner school districts hand-on experience with surgical robots through our Robot Academy Program to explore how robots unite science and medicine.
- Offer these activities through April 30, 2015 and determine level of participation year-to-year.

Mentor Graphics agrees to work with South Metro STEM Center and partnering schools in the following ways:

- Open their facility for educational field trips/tours that encourage youth to pursue engineering and science degrees.
- Encourage engineers to speak at in-class "career day" events.
- Encourage employees to support and/or help develop hands-on learning experiences for in-school and out-of-school STEM programs (e.g. aid in the development of STEM activities in the classroom, mentor FIRST after school programs).
- Encourage employee usage of stemoregon.org to connect employees to STEM volunteer opportunities.
- Host partnership events and meetings and provide space for teacher professional development, as available.

Xerox agrees to:

- Continue to support the Xerox Science Consultant Program in partnership with Portland Public Schools, encouraging the expansion of similar programs with other organizations in the South Metro-Salem STEM Partnership.
- Open our facility to South Metro-Salem STEM Partnership and partnering schools for



educational field trips/tours that encourage youth to pursue STEM degrees.

- Encourage engineers and other employees to volunteer their time as mentors and classroom co- instructors, as opportunities are defined by the South Metro-Salem STEM Partnership.
- Provide mentors in support of hands-on learning programs (e.g. FIRST Robotics/Lego League, Saturday Academy, etc.) and job shadow opportunities for teachers.
- Network with professional associations or organizations to grow awareness of the South Metro- Salem STEM Education Partnership.

Community Partners

Business Education Compact

- Paid internships – provide experiential learning that supports college and career readiness.
 - Provide students 16 years and older with paid internship opportunities in STEM fields (summer and year-round).
 - Collaborate with businesses to design STEM-related internships suitable for students as well as summer internships for educators
- *STEM Connect* Initiative – create and support enduring partnerships between SMS businesses and neighborhood underserved schools to:
 - Fuel interest in science and math in 4th and 5th grade classrooms where research reports declining interest at that age level.
 - Create awareness of what science and math skills can mean for a future career.
 - Generate excitement and interest in pursuing STEM careers
- K-12 transformation through proficiency-based teaching and learning (PBTL)
 - Advise SMS schools of PBTL training opportunities.
 - Inform SMS schools of major grant activities and what it could mean for them.
 - Collaborate with K-12 schools and higher education partners in submitting grant applications for professional development in proficiency practices

Evergreen Aviation and Space Museum agrees to:

- Provide access at a discounted rate to Space, logistic assistance, and coordination to conduct in-service teacher education workshops in the summer (K-5, 6-8, 9-12) with assistance from post-secondary South Metro-Salem partners;
- ~~Provide access to "master I coach" teacher network that can support teachers in their classrooms throughout the year, with assistance from South Metro-Salem STEM partners;~~
- Provide access at a discounted rate to space, logistic assistance, and coordination with post-secondary South Metro-Salem STEM partners for workshops for teacher educators from public and private teaching programs to influence pre-service education and increase focus on STEM;
- ~~Support for a program director for the STEM Network (STEMOregon Connections) by working with South Metro-Salem partners to identify and secure funding from private and public sources for the continuation of the position.~~
- Use STEMOregon.org to promote and advertise Evergreen Aviation and Space Museum opportunities for teachers and students.



Girls Inc will:

- Share best practices around engaging girls in STEM learning experiences that are hands-on, experiential and impactful on topics such as gender-specific programming, mentoring, and motivating girls
- Offer after-school and enrichment programming to South Metro STEM Partnership schools in order to engage more girls in impactful STEM learning experiences that inspire them to consider STEM-related post-secondary and career options, including the standard Girls Group model that integrates Girls Inc. nationally developed curricula and/or workshops
- Connect with families to strengthen their ability to support girls with setting personal, academic and future goals that lead them to economically independent and rewarding lives
- Facilitate training and professional development sessions for formal and informal educators focused on enhancing girls' outcomes related to personal development, academic achievement, on-time graduation, and STEM-related future aspirations
- Partner with girls, families, and other stakeholders on enhancing the cultural responsiveness of educational opportunities that girls access
- Further deepen the understanding of girls, families, educators, and other community stakeholders that investing in girl-focused STEM programming enhances community and economic development prospects for the state

Mad Science agrees to:

- Mad Science has existing partnerships with businesses, municipalities, school districts & non-profit organizations. Mad Science will leverage these partnerships to engage our existing partners to connect and participate in the STEM Center.
- Mad Science will leverage our strong web presence to promote the STEM Center including, but not limited to; regular blog postings about STEM Center activities, achievements or events, web links on our website and social media accounts.
- A Mad Science representative will attend and participate in STEM Center meetings to provide input and identify opportunities to contribute to the work of the center.
- Mad Science will offer summer programs, non-school day programs, or weekend activities at Oregon Tech, Evergreen STEM Center, or other partner satellite locations to elementary age students.
- Mad Science will provide scholarships to low income or underrepresented groups for programs offered in partnership with the STEM Center.
- Mad Science will work with partner elementary schools to provide programs for STEM learning at their school.

NASA/Oregon Space Grant Consortium agrees to:

- Provide partial funding for the annual salary and benefit package of a STEM Network Director for the South Metro-Salem STEM Education Partnership. This commitment is valid through June 30, 2015 with the possibility of renewal. This commitment is contingent upon the South Metro-Salem STEM Education Partnership's ability to raise a minimum of dollar-for-dollar match of the OSGC supplied financial support.



- Support the fund raising and fiscal management activities for the South Metro-Salem STEM Education Partnership by using its membership in the National Space Grant Foundation (NSGF), a tax exempt 501(c)(3) organization, to serve as the receiver of donations and to serve as the agent for entering into contractual arrangements on behalf of the Partnership.
- Provide access to the national network of NASA supported STEM professional development opportunities for in-service and pre-service teachers associated with the Partnership.
- Provide access to NASA-supported STEM curriculum development resources.
- Provide students and teachers access to the mentorship, internship and academic opportunities of the Oregon Space Grant Consortium including development of research and education projects for flight on the International Space Station.

Oregon Afterschool for Kids (OregonASK) agrees to:

- Provide Dimensions of Success observation tool and Common Instrument to afterschool and summer programs with South Metro STEM partner schools.
- Continue to develop the STEM Bridges program process with other STEM partner schools.
- Share opportunities and resources to advance STEM policy through the National Network of Afterschool.
- Provide training and workshops related to afterschool programs through the Oregon After school Network and the National Summer Learning Association.
- Provide in-kind support staffing for assistance with STEM Hub Quarterly meetings - through use of STEM Americorp VISTA.
- Support and submit grant proposals to seek financial support for afterschool STEM programs in partner schools.

Oregon Computer Science Teachers Association (OSTA) is the only organization training computer science and engineering teachers in Oregon. We will:

- host several 3-day summer SuperQuest workshops at different locations around the state, for which SMSP teachers may register.
- provide a one-day, in service training during Fall and Spring SuperQuest workshops, for which SMSP teachers may register.
- partner with and provide training and support for the following entities: Oregon Game Programming Challenge, Innovation Academy, Pixel Arts, Willamette Programming Contest
- Continue to cover the following concepts during OCSTA workshops: JAVA, Python, C++, recruiting girls and underrepresented populations, starting CS programs, engineering and CS curriculum, 3D printing, web coding, flipped classrooms/bringing the experts into the classroom, FTC/FLL/Vex robotics, teaching tools/iPads, Computer Science as a core curriculum, Google education tools, online self-graded assessment, video game design, Game design as an answer to ADHD?, coding for the masses, K-5 Coding, Code for a Day
- Work with SMSP partners to explore the possibility of OCSTA becoming the staff development organization in Oregon for K-12 computer science and engineering teachers.
- Work with SMSP partners to help OCSTA become the CS and engineering staff development partner for all of the Oregon STEM hubs



OregonFIRST agrees to:

- Work with South Metro STEM Partnership's partnering schools to start and support FIRST robotics programs 5th – 12th grades in their districts in the following ways:
 - Create sources of funding opportunities for school districts who wish to add FIRST robotics programs
 - Offer training workshops for teacher/coaches that will be held by FIRST staff, fellow teachers and/or industry professionals
 - Build a networked community of support among the schools, industries and colleges that partner with FIRST programs
 - Provide mentor recruitment opportunities from industry employees who are willing to work face to face with the students
 - Provide industry partners to communicate and broaden the scope of high tech jobs in Oregon
 - Provide access to \$15M in college scholarship dollars with participating universities to high school students who have participated in a high school FIRST program.

Oregon MESA will:

- Provide a representative to participate in STEM center meetings
- Create "start-up" funding support for school districts who want to start MESA programs in their schools
- Provide a voice and support efforts to reach underserved communities
- Share best practices of STEM learning, family involvement and college attainment
- Provide professional development opportunities for teachers in engineering design
- Share open-source MESA-created curriculum
- Build a network of highly supported STEM teachers.

Project Lead the Way, Inc. (PLTW)

- In accordance with standards established by Project Lead The Way, Inc., Oregon Tech agrees to advise schools on how to incorporate the Project Lead The Way (PLTW) Program as a STEM curriculum that helps meet the state's STEM standards, offers applied curriculum in the classroom, and could be utilized to meet a science requirement for high school graduation.
- Oregon Tech agrees to offer credit by examination for students successfully completing PLTW courses in certified schools.
- Chemeketa Community College provides support for PLTW by sponsoring the Oregon PLTW State Leader as well as dual credit opportunities for students. In addition, Chemeketa provides faculty and credit for PLTW courses in accordance with standards established by Project Lead the Way, Inc., which is available to high school students throughout the region through the Evergreen STEM Institute.
- Clackamas Community College agrees to be a part of a multi-college articulation pathways agreement in Manufacturing Engineering Technology with Oregon Tech and will provide pathways to Oregon Tech for students to complete their bachelor's degree in this field.
- Clackamas Community College provides career technical education in partnership with several



area high schools and PLTW is among the coursework from which students can choose.

- In collaboration with Project Lead the Way, Inc., CCC agrees to explore opportunities for other area high schools to establish PLTW at their school.
- PLTW will provide information sessions to interested schools on the PLTW Program and its impact on preparing students for the global economy.
- For schools already participating in PLTW, the program provides curricular programs at the middle and high school levels in engineering and biomedical sciences, including associated end of course assessments, on-going professional development, collaborative teacher forums, and other benefits. All schools that participate in the PLTW Program shall enter into agreements acceptable to PLTW relating to standards for program implementation and the use and ownership of confidential/proprietary information.
- Project Lead the Way 9-12 grade courses will offer incentives to students, including college credit from many colleges and universities in the nation, including Oregon Tech.

Salem-Keizer Education Foundation will:

- Provide a representative to participate in STEM center meetings
- Fund and operate before and afterschool programs K-12 in Salem-Keizer offering a variety of best practice STEM-based programs.
- Fund and produce STEM-based professional development for K-12 educators and instructional coaches, and community members
- Will develop and produce STEM based family nights for elementary and middle school students and their families
- Upon funding will provide STEM-specific AmeriCorps service members to our mid-Valley professional development cohort which includes Oregon ASK, Woodburn, Central and Falls City School Districts.
- SKEF will leverage our numerous existing partnerships with businesses, municipalities, school districts & nonprofit organizations and engage them to connect and participate in the STEM Center.
- Build a network of highly supported STEM teachers

Saturday Academy will:

- Provide advice, curricula, and materials for the teacher learning community and STEM Network that respond to Common Core and NGSS and include hands-on experiences for students.
- Provide additional out-of-school STEM education classes to the South Metro STEM Partnership schools, including on-side courses before or after school, and over holiday and summer breaks.
- Provide training for community professionals, who may have little experience teaching or mentoring K-12 students as well as provide training for school teachers that encompasses how to implement hands-on STEM, project-or inquiry-based learning, additional content expertise in STEM, as well as classroom management, and methods of assessing if children are engaged and understanding STEM content.
- Through Saturday Academy's statewide high school apprenticeship program, we will engage



families and raise awareness about meaningful STEM accelerated credit opportunities.

- Provide special programming for talented and gifted students through on-side courses before or after school, and over holiday and summer breaks.
- Relay the message to stakeholders that STEM education is vital to our state and the nation, and that we can expect more of children, as they are capable if given opportunities to achieve.

III. STEM Hub Responsibilities under this MOU

The South Metro-Salem STEM Hub backbone is funded through a variety of mechanisms, including the Oregon Department of Education STEM Hub grants and the Oregon Space Grant Consortium. The backbone is generously hosted by Oregon Tech, and our physical location is the Oregon Tech-Wilsonville campus.

- The STEM Hub will provide leadership for partnership meetings.
- The STEM Hub will identify each partner as a collaborating partner in the STEM Partnership documents.
- All signatory partners are able to use the South Metro-Salem STEM Partnership (alternately, South Metro-Salem STEM Hub) name and logo.
- The STEM Hub will act as a clearinghouse to increase community and industry engagement in partner schools.
- The STEM Hub will coordinate professional development for teachers and maintain a comprehensive calendar of training opportunities in the region, in collaboration with Partner district representatives.
- All partner school districts will receive priority registration for teacher professional development workshops and mentoring.
- The Hub will facilitate development of STEM experiences for teachers.
- The Hub will seek funding resources to support STEM initiatives in the region.
- The STEM Hub will collect data from Partner districts annually to measure the impact of initiatives on Partnership goals and outcomes.



Amendment, October 2015

Technology Association of Oregon will: (added 10/15)

- Promote the South Metro-Salem STEM Hub among TAO member companies utilizing TAO's weekly e-newsletter, social media channels.
- Market opportunities to TAO member companies for employees of those companies to participate as volunteers/mentors in programs offered by the South Metro-Salem STEM Hub.
- Work with the South Metro-Salem STEM Hub to develop stories for blog posts demonstrating ways in which TAO member companies have worked with the STEM Hub over the course of the year.

Tualatin Chamber of Commerce will: (added 10/15)

- Serve as members on the Tigard-Tualatin School District CTE project advisory team
- Provide connections to Tualatin-area industry partners
- Promote Oregon Connections among industry partners to link local workforce to classroom experiences
- Collaborate with SMSP on opportunities to expand STEM/STEAM learning for Tualatin students, particularly through America's Best Communities competition planning and implementation
- Develop and support Industry events appropriate for students-
 - Career Fair for middle school parents and students
 - Career Fair for high school students
 - Facilitate industry site visits and tours for administration, staff and students

Wilsonville Public Library will:

- Provide a representative for the STEM Partnership meetings.
- Develop and share STEM-based programs and materials to partners and libraries.
- Represent the Libraries in Clackamas County (LINCC) consortium at STEM Partnership meetings.
- Promote STEM education and initiatives to Oregon public libraries.
- Provide STEM-based informal educational opportunities for preschool and elementary age children and parents.

World of Speed Museum will: (Added 10/15)

- Provide West Linn - Wilsonville School District high school students with dual credit Automotive/STEM courses in collaboration with Clackamas Community College.
- Provide high school students in neighboring School District's opportunities for dual credit Automotive/STEM courses in collaboration with local community colleges.



- Facilitate connections to automotive industry partners who will provide paid internships for high school students designed to provide hands-on skills development opportunities in support of college and career readiness.
- Provide access to our facility to South Metro-Salem STEM Partnership and partnering schools for education field trips/tours that encourage youth to pursue STEM degrees.
- Provide access to our facility to educators for professional development meetings or events contingent on space availability.
- Use South Metro-Salem STEM Partnership as marketing channel to promote STEM-based educational opportunities for students and teachers at World of Speed.
- Promote Oregon Connections to automotive industry partners as a means to connect automotive content and skill expertise with classroom teachers who seek it.