**III. Detail on Project Activities**

| **Activities during 15-month grant period** | **# of teachers and students impacted** |
| --- | --- |
| **Overall STEM Hub – building engagement and resources** |  |
| * Hire STEM Hub Executive Director to strengthen STEM Hub Backbone organization * Update strategic business plan * Conduct ongoing communications with all partners * Write grant proposals and develop private resources * Collect and evaluate data * Develop evaluation plan and conduct initial evaluation * Utilize Equity Lens to provide training for all partners * Add more community partners focused on underserved populations * Add more active business partners | *Overall system building – no direct impact on students and teachers*  Total direct impact for ALL activities annually, during grant period:[[1]](#footnote-1)  100 teachers  45 counselors  5,500 students  80 post-secondary faculty  15 superintendents  30 principals |
| **Strategy 1: STEM Learning Community** | [[2]](#footnote-2) |
| Develop ongoing STEM Learning Community plan and outcomes | 45 teachers (3 from each partner district) |
| Conduct three Learning Community/STEM Leadership Sessions with 20 participants each – Professional Development Cohorts – Summer  High School: Partnerships Middle School: STEM/Leadership Elementary School: STEMify lessons.  1. Clarification of STEM education - and what it looks like at each school level (or district level for admin) 2. Production of materials at each level to support STEM instruction that will be housed in Hub for all partners to share. 3. Develop plan to disseminate, share, lead STEM initiative in each district. | 60 teachers  600 elementary students  3000 MS students  3200 HS students |
| Conduct STEM leadership training by June 2015, leading to STEM plans for each district | 45 teachers  15+ leaders/ superintendents |
| Conduct five 2-hr. STEM cross-district learning sessions of 30 - 45 participants to work on district STEM Plans and continue cross-district collaboration | 45 teachers  15 administrators |
| Incorporate STEM Network and Equity Lens into learning community process | 45 teachers |
| Utilize STEM Network Director to build support and use of the STEM Net platform by teachers to enhance contextualized learning in classrooms | 100 teachers |
| **Strategy 2:** **STEM Network of industry and community resources for schools** |  |
| By June 2015: Work with SMS STEM Hub partners to modify an existing or develop a new STEM Network platform, connecting businesses and community members to schools, teachers, and classrooms. | *Overall system building – indirect impact on students and teachers* |
| Utilize the learning community to perform a needs assessment to determine teacher in-class and out-of-class needs, aligned to CCSS. | 45 teachers |
| Collaborate with BEC, Oregon ASK, Saturday Academy, and PDX STEM Hub to develop professional development, training materials and experiences for classroom volunteers and mentors. | *Overall system building – indirect impact on students and teachers* |
| Identify 15 early adopters (1 per district) of the STEM Network from the learning community or via principal recommendations. Recruit business volunteers. Match early teacher adopters to business partners via Network, based on needs assessment data. | 15 teachers  150 volunteers |
| Leverage the Partnership Learning Community to facilitate teachers working 1:1 with business volunteers to create context based, hands-on activities related to state STEM standards for volunteers to use in the classroom. | Teachers: 10  Volunteers: 10  Students: 400 |
| Collaborate with STEM HUB college, university and community partners to connect higher education and community STEM activities with K12 STEM experiences. | 10 faculty and instructors |
| Use the STEM Network to post activities developed by volunteers and number of connections made via the network. | *Overall system building* |
| Utilize partners BEC and Saturday Academy to promote and make available via the STEM Network internship opportunities for students and teachers |  |
| Build partnerships with Technology Association of Oregon (TAO) to help support the STEM network for smaller companies and start-ups. Incorporate their resources into the network. | *Overall system building* |
| Utilize First Technology Credit Union and other STEM HUB partners to market the STEM Network. Marketing opportunities may include district in-services, links on business partner, district and school web sites. | *Overall system building* |
| Partner with BEC to implement their adopt-a-school model (aka School Ambassador, aka STEM Connect model). Recruit 2 additional companies. | Two companies matched with SMS schools |
| Long-range plans, during next grant period:   * Collaborate with STEM Hub partners to expand STEM Network functionality. Possible modifications may include:  additional searchability features, analytics, STEM scholarship opportunities, mentorships, after-school programs, summer STEM experiences, evaluation by teachers and companies. * Extend the network to PDX STEM region and East County STEM partnerships. Focus on scalability with the goal of launching as a statewide tool * Expand the adopt-a-school model (aka School Ambassador, aka STEM Connect model). |  |
| **Strategy 3: Accelerated STEM college credit through expanded school, college, university collaborations[[3]](#footnote-3)** | |
| Add 15 dual credit STEM options/courses in all 15 school districts | 300 new students |
| By June 2015: increase dual credits by 8% | 8% increase 822 |
| Increase in number of HS students earning college credits by 8% | Increase by 186 each year |
| Qualify 15 new teachers to teach STEM courses throughout the 15 high schools | 15 teachers |
| Complete a “Core to College” system assessment for high school math classes. |  |
| Conduct 8 HS collaborative outreach sessions for students and families, led by post-secondary and community partners, incorporating equity outreach | 400 students and family members |
| Conduct 3 HS work sessions for teachers to collaborate with faculty | 160 teachers and faculty |
| Conduct 3 outreach sessions to HS Counselors in the 15 school districts about the advantage of accelerated credit for students and the resources each college has to help navigate the transfer of credit for individual students. | 45 counselors |
| Develop collaborative marketing materials for diverse audiences that acknowledge the value of accelerated credits and the money saved by taking accelerated credit |  |
| Report on overcoming barriers to accelerated credit and core to college for dissemination to other STEM Hubs |  |
| By June 2014: Add in MHCC to expand reach of practices to East County |  |

1. Direct over time: 126,000 students in 15 districts through teacher professional development, experiential learning, dual credit and STEM Plan implementation in districts. [↑](#footnote-ref-1)
2. Teacher and student impact: K-5 – 30 students per teacher; 6-8 – 150 students per teacher; 9-12 – 160 students per teacher. All impact is per year. [↑](#footnote-ref-2)
3. This strategy builds capacity to reach more diverse students and award more credits annually. [↑](#footnote-ref-3)