# Appendix B – Cover Page

## APPLICATION COVER PAGE (Please Print or Type – All Fields Must Be Completed)

Project Name: Project LAB (Learning Aligned with Business) Amount Requested: \$400,000

Project Director: John Bier, High School Principal					
District, School or ESD: David Douglas School District					
Address: 1001 SE 135th Ave					
City: Portland State: OR Zip: 97233					
Phone: 503-261-8300 Email: john_bier@ddsd40.org					
	gh School Pri I Douglas Sch e State: OR	gh School Principal Douglas School District e State: OR Zip: 97233 Email: john_bier@ddsd40.org			

Grant Fiscal Agent Contact: Patt Komar, Director of Administrative Services				
District, Charter School or ESD: David Douglas School District				
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City: Portland State: OR Zip: 97220				
Phone: 503-256-6500 Email: patt_komar@ddsd40.org				

Superintendent: Don Grotting				
District or ESD: David Douglas School District				
Address: 11300 NE Halsey St				
City: Portland	State: OR		Zip: 97220	
Phone: 503-256-6500		Email: don_grottir	ng@ddsd40.org	

	Participating High School or Middle School Name (add additional rows as needed)	Lead Contact Name	Grade Levels	Student Enrollment
1.	David Douglas High School	John Bier, Principal	9-12	3,003
2.	David Douglas High School, Fir Ridge Campus (Alternative High School)	Joy O'Renick, Principal	9-12	185
3.	Alice Ott Middle School	James Johnston, Principal	6-8	743
4.	Ron Russell Middle School	Andy Long, Principal	6-8	870
5.	Floyd Light Middle School	Doug Pease, Principal	6-8	836

#### A. Project Abstract

David Douglas School District seeks to cultivate a rich CTE-STEAM ecosystem through Project LAB (Learning Aligned with Business) by creating a strong link from middle schools and high schools to workforce and post-secondary education. Project LAB will revitalize high wage, high demand CTE programs and pathways aligning with state academic content standards, industry-recognized technical standards and employability skills. Following is our blueprint for success: a) Ignite the Hospitality and Tourism Management program by incorporating restaurant management and advanced culinary classes and reopening The Kilt, a student-operated restaurant; b) Bolster **all** CTE programs and build access to career pathways by developing and implementing a Teacher Externship Program to deepen business partnerships, and constructing a MakerSpace to promote applied learning for STEAM content and increased student participation in CTE; and c) Strengthen partnerships with post-secondary education, businesses and labor by articulating more CTE pathways and identifying and addressing industry and students' needs, including those of historically underserved students. David Douglas is prepared to "think big" to support our students in their role in Oregon's economic prosperity.

#### B. CTE Revitalization Grant Vision

Summary of CTE – David Douglas School District is positioned to revitalize CTE through a framework of nine state-approved CTE programs of study, key positions and active membership in stakeholder groups. CTE programs integrate academic rigor and industry standard skills and include: Construction Technology, Business Management and Administration, Computer Information Technology, Education and Human Development, Automotive Technology, Health Occupations, Manufacturing, Natural Resources and Hospitality and Tourism Management. We align and articulate all CTE programs through the Mt. Hood Regional CTE Consortium and have merged CTE-STEAM initiatives to reinforce core academic content. The High School's School-to-Career Coordinator ("CTE Coordinator") and District STEAM Coordinator drive initiatives as members of the Tri-County School-to-Work Consortium and East Metro STEAM Partnership.

#### Specific examples of outcomes and activities that address the vision

<u>Innovation</u>: Project LAB (Learning Aligned with Business) improves upon the status quo and reaches scale through the following strategies that expand awareness about CTE programs, increase enrollment and enhance career preparation:

- Recruit and retain middle school and historically underserved students by developing and implementing engaging CTE-STEAM courses during and out of school time
- Upgrade facilities to revive our student-operated restaurant, "The Kilt," and create a dedicated MakerSpace at the High School; both will offer entrepreneurial, project-based learning aligned with industry standard equipment and skill sets
- Develop and implement a Teacher Externship Program (TEP) that develops our 18 CTE teachers as CTE leaders through professional development in collaboration with industry.
   Teachers will design lesson plans supporting student understanding of industries

<u>Integration</u>: Project LAB business, education and community partners will provide students with multiple pathways to high wage/high demand careers:

- *Businesses* will contribute design projects, mentoring, internships, tours, mock interviews, teacher externships, advisory support, professional development and more.
- *MHCC* will continue to articulate CTE courses, provide dual credits, leverage funding and serve as a key CTE advisor.
- *Community partners* will provide out-of-school-time CTE-STEAM enrichment, and culturally responsive academic tutoring and outreach, capturing the interest of middle school students and communicating the purpose of pathways to students and parents.
- *Career and Technical Student Organizations* as well as *The Kilt* and *MakerSpace* will support students in meeting diploma requirements, gaining experiential and career-related learning experiences and acquiring leadership, technical and workplace skills.
- *The MakerSpace Coach* will receive professional development and provide it to teachers, create and oversee an experiential learning space, recruit underserved students, and teach CTE courses. We will provide "MakerCarts" for middle schools and our alternative high school, providing mobile technology and equipment for classrooms. Stakeholders will help develop a pedagogy-based technology implementation plan<sup>1</sup> to ensure best practices.

Expansion and Growth: The District and Board are invested in CTE program and pathway revitalization and expansion. Of the 3,306 high school students, 81% participated in CTE programs in 2014-15. In order to grow high wage/high demand CTE programs and pathways, it is imperative that we: 1) Reopen The Kilt, a student-operated restaurant; 2) Re-purpose two

<sup>&</sup>lt;sup>1</sup> "Technology Implementation in K-12," University of Portland & Northwest Evaluation Association, Multnomah County Partnership for Education Research, September 2015

classrooms—one for the MakerSpace and one for a culinary room; 3) Add a 1.0 FTE, certified MakerSpace Coach (Appendix 1); 4) Develop and implement an Engineering program of study; and 5) Develop and implement a Teacher Externship Program relating industry skills to lessons. Experiential Learning: Project LAB ensures project-based learning for students. Culinary Arts I, Culinary Arts II and Introduction to Restaurant Management and Hospitality students will explore dynamic and fast-paced roles including Restaurant Manager and work in the commercial kitchen using industry standard equipment. They will apply STEAM academic content, critical thinking and workplace skills including science-based understanding of food safety and quality. The MakerSpace Coach will apply his/her own professional development (from the Pittsburgh FAB institute and/or other training), in industry standard equipment such as CAD/CAM software and 3D printers, guiding students as they explore equipment and materials such as metals, vinyl and plastics. Students will solve problems posed by business partners using design principles and explore various aspects of career pathways, e.g. management and technical skills, as well as learning how to work with autonomy, collaborate, lead, manage time and communicate. Builds career pathways for students that lead to high wage and high demand occupations: The District added Introduction to Restaurant Management and Hospitality this year and will add Culinary Arts 1 and 2 in the following years. This intentionally builds career pathways to Food Service Managers and Lodging Managers that are high wage/high demand. The MakerSpace and Teacher Externship Program will build career pathways to all CTE programs, but with a focus on high wage/high demand. The District will nurture our successful CTE-STEAM enrichment opportunities with partners such as Impact NW (Pathways to Manufacturing) and others to encourage exploration of high wage/high demand pathways.

How the project will change the way students experience CTE – Engaging students in CTE-STEAM will increase enrollment and ensure diploma requirements. The experiential nature of the MakerSpace will capture students' desire to explore, create and problem solve while participating in authentic learning activities. Students will acquire a sense of ownership and pride (they will also rename the space) as they commit to a "MakerSpace community" that incorporates opportunities for building confidence, leadership, collaboration and ingenuity needed to succeed in the workplace. Examples of use include: A Health Occupations student may design and manufacture a medical device<sup>2</sup> thus integrating core skills in multiple subjects; Business Management students may design a new product and create promotional materials; Manufacturing students may use 3D printers to make a model of a broken part for repair. The Kilt, our high school restaurant and once the capstone of the High School's Hospitality and Tourism Management program, will reopen to all District staff and students, allowing culinary students to learn the business, technical, fundraising, customer service and creative aspects of operating a restaurant, immersing themselves in a real world environment.

All students will benefit from: teachers completing the Teacher Externship Program and developing a clear sequence of learning with related skills; business partners infusing industry expertise during the mentorship; the CTE-STEAM Coordinators guiding content; and the MakerSpace Coach providing expertise for innovation and project-based learning.

How the project will change the way historically underserved students will experience CTE We will employ a variety of strategies to pique interest in CTE, such as inviting successful women or people of color who represent our targeted industries to be guest speakers. We will

<sup>&</sup>lt;sup>2</sup> http://www.3dprinter.net/10-ways-3d-printing-is-changing-the-medical-world

continue to collaborate with community partners, e.g. Worksystems and Women in Trades to design outreach activities specifically targeting underserved students. The MakerSpace Coach will need to demonstrate qualifications for working with underserved students. Students from our alternative high school, who are a lower-income, and more racially and ethnically diverse student body than the high school, will benefit from their teachers' professional development and access to a MakerCart. Our experience is that students with disabilities benefit from increased opportunities for hands-on learning; this is based on current enrollment in culinary classes as well as student-operated ventures through our Community Transition Program, including a coffee cart and greenhouse (the latter to be restored through Natural Resources).

#### C. Partnerships

Role in Development – The High School has developed Advisory Boards for each of our nine CTE programs of study, including Hospitality and Tourism; many advisors are Project LAB's partners. High School leadership developed short and long term plans to articulate to four postsecondary institutions and is taking steps to implement a new Career and Technical Student Organization (CTSO) this year, FFA. In 2015, we partnered with Impact NW, Innovation Academy and others to provide summer CTE enrichment, e.g. MakerCamp, robotics and coding (Appendix 2); courses will be replicated next summer. Impact NW collaborated to create a vision for a summer CTE Career Pathway Wheel for middle school students. The Rockwood Library consulted about practical and academic considerations for implementing a MakerSpace. Role in Implementation – Business partners have committed to activities such as guest speaking, mock interviews, mentoring and tutoring, internships, tours, career days, and more intensively, to exploring a Teacher Externship Program. We will coordinate activities, including career exploration, e.g. Manufacturing Day, with partners (including EMSP (Appendix 3),

Impact NW and Worksystems). Local Cow will provide assistance with rules and licensing for The Kilt. CTE Advisory Boards will help programs stay abreast of industry skills in demand, share best practices and provide resources. Finally, Mt. Hood Community College (MHCC) and the Mt. Hood Regional CTE Consortium are our primary post-secondary partners, including alignment of all CTE programs (including 44 courses) and articulation of "College Now" Dual Credits. Last year, students received 7,076 LDT and CTE credits, up 60% from the previous year. Our District is a leader in this arena, earning 28% of the total dual credits that MHCC awarded to the Consortium's schools last year. Through our partnership, the District will also leverage professional development and Perkins funding to purchase culinary and CTE equipment, share advisory members and explore the feasibility of an Engineering program. **Possible role beyond grant** – A primary goal for Project LAB over the long term is to increase employer engagement per our current assessment of their engagement (Appendix 4). We will request that more partners commit more intensively (some already do) by providing teacher externships, student internships and convening/championing for the CTE programs that benefit multiple stakeholders. Long-term commitment is key to the success of our project and we seek to strategically cultivate these essential partnerships.

**Correlation to state, regional, or local high wage/high demand occupations -** Boeing Company (offering student internships), Daimler Trucks North America and Vigor (who support Impact NW's Pathways to Manufacturing program, of which we participate) are major employers of advanced manufacturing. Two-thirds of the sector's jobs require less than an Associate's Degree, meaning our community college linkage will prepare students to enter this high wage/high demand industry. Per Providence Health Systems, health care careers (many high wage/high demand per OED) are expected to be the No. 2 area of career growth in

Oregon between 2012 and 2022. <sup>3</sup> Country Cat and Local Cow/Bluebird Dining Hall are restaurant owners and managers, correlating to Food Service Management. The Hilton and CCI correlate to Lodging and Hospitality Management and the Oregon Forest Resources Institute (our Natural Resources partner) correlates to high wage/high demand occupations in that industry.

**Promoting opportunities for historically underserved students -** Partners provide: free programs (most); scholarships (ACE Mentor Program and CCI); best practices to reach underserved youth (EMSP); population specific programs, e.g. girls (industry events); and inclusion and diversity programs and opportunities (FIRST Robotics, Warner Pacific). Afterschool programs typically engage under-represented populations, including STEM<sup>4</sup>. Project LAB promotes participation in CTE-STEAM after school and summer activities, e.g. through SUN programs, Impact NW, Innovation Academy, FIRST Robotics and CCI.

**Growth in opportunities for articulated credit** –This year, a Health Occupations strand and courses under Hospitality and Tourism Management and Natural Resources will articulate with MHCC; all courses are eligible for college credit. CTE-STEAM leadership is in the process of course articulations with Eastern Oregon University. We will articulate with CCI (at COCC) in 2017-18 and plan to articulate Engineering courses with MHCC in 2018-19.

## SECTIONS D, E AND F FOLLOW THIS NARRATIVE. G. <u>CTE Program of Study Design</u>

How identified activities lead to enhancement of or creation of a CTE program of study <u>Adding courses to the Hospitality and Tourism Management program of study</u> gives students exciting and clear pathways to high wage/high demand careers in restaurant and lodging. Revitalization grant funds will allow us to upgrade facilities, transforming an underutilized,

<sup>&</sup>lt;sup>3</sup> <u>https://www.qualityinfo.org/jc</u>

<sup>&</sup>lt;sup>4</sup> http://www.afterschoolalliance.org/AA3PM/STEM.pdf

traditional classroom into a vibrant hands-on space. The updated culinary room will include six ranges and six double-sinks, refrigerators and other industry-standard equipment; the update serves a dual purpose, also allowing advanced students to use the commercial kitchen for the student-operated restaurant where they will gain experience in a real world environment. We will re-purpose a second classroom as a MakerSpace (and hire a MakerSpace Coach to connect all CTE programs as well as STEAM content in core classes), as an experiential space where students can apply learning. The room will house 3D printers, vinyl and laser cutters, among other industry-standard equipment, as well as computers for design, storage for projects and tables for work areas. It is accessible to the public via an outside entrance that coincides with future plans for sustainability (Section K).

<u>The Teacher Externship Program</u> enhances all CTE programs: teachers participate in industry site visits, collaborating and learning; upon return, they reflect and incorporate knowledge and trends into future lesson plans. This increases academic rigor for students, strengthening and sustaining programs and supporting students to acquire necessary skills.

Alignment with relevant state academic content standards, industry-recognized technical standards and employability skills; Preparation to further education beyond high school <u>PACE (Personal and Career Education)</u> is a required course that increases knowledge of career options and CTE programs through career related learning experiences (CRLEs). Next year, students may bypass PACE, entering directly into a CTE program, as CRLEs will occur within the CTE courses aligning with post-secondary education at MHCC. Students will be able to participate in CRLEs that are more relevant to the industry they are interested in exploring. <u>The Kilt</u> will provide inherent leadership and CRLEs. Students will cater school-wide and community events with funds returning to the program. Culinary Arts 1 students generally hold

culinary and service positions within the Kilt, while Second Year/Advanced students serve as managers and chefs. Curriculum includes effective communication and management skills. <u>Pathway reinforcement</u> includes participation in Oregon's FIRST Robotics program and competitions. FIRST inspires students to be leaders by engaging them in mentor-based programs that build STEAM skills, inspire innovation, and foster well-rounded life capabilities including self-confidence, communication, and leadership. A proposed Career Pathway Wheel in partnership with Impact NW will be offered to middle school students through SUN and a summer program supported by the 21<sup>st</sup> Century Community Learning Center. The Wheel will allow students to engage in projects within each CTE program area.

How the design addresses the CTE Revitalization Grant Vision - Revitalizing Hospitality and Tourism Management adds three higher level courses and incorporates an authentic learning experience. It enrolls an additional 256 students; it provides experiential learning through the transformed classroom and re-use of the commercial kitchen; and builds pathways to Food Service Managers and Lodging Managers for high wage/high demand careers. The MakerSpace (and Coach position) enhances all CTE programs through an innovative Maker community applying CTE-STEAM skills; it expands CTE enrollment by sparking interest and new ways for students, teachers and partners to be involved; and provides a hands-on, design-focused center for exploring a myriad of high wage/high demand CTE pathways (Section H).

**Steps to gain ODE approval of CTE program of study** – The above are ODE approved programs; however, our goal is to receive ODE approval for an Engineering program for 2017. We will strategize an effective and relevant sequence of courses (in tandem with our Computer Technology Information program) that reflects modern technology trends. Engineering will require a minimum of two credits, alignment with MHCC, articulation, an Advisory Board and

will be leveraged with the Perkins grant. The certified MakerSpace Coach will ideally teach Engineering classes, optimizing that position and meeting the needs of a growing program.

# Culturally responsive programming to meet the needs of historically underserved students

Partners ensure a culturally responsive program by eliminating financial barriers to participation

and specifically targeting underserved groups. The District's SUN programs draw underserved

students and increase student and parent awareness of CTE as well as increased student

participation. These and other strategies are detailed in Section I (Equity).

# H. High Wage and High Demand Occupations

Within our CTE programs we are targeting these high wage/high demand occupations:

Computer Information Systems, Industrial Production, Construction,
Architectural and Engineering, Food Service, Lodging, Natural
Sciences, Agricultural Managers, Event Planners, Operations,
Advertising and Promotion and Sales
Architects, Engineers (Electronics, Civil, Industrial, Computer
Hardware, and Mechanical), Foresters, Computer Operations, Related,
Health Education, Teachers and Instructors
Electrical and Electronics, Industrial Engineering, Environmental
Scientists, Agricultural and Food Science
Therapists (Physical and Respiratory), Nurses (Registered and
Licensed Practical/Vocational), Healthcare Practitioners and Technical
Workers, and Assistants (Physical Therapist, Massage and Dental)
Carpenters, Operating Engineers and Other Construction Equipment
Operators, Sheet Metal Workers, Construction and Building Inspectors
and Related
Auto Body and Related Repairers, Service Techs and Mechanics,
Industrial Machinery Mechanics, Maintenance and Repair, general
Computer-controlled machine tool operators, Machinists, Welders,
Cutters, Solderers and Brazers (spelling per OED website data)

Evidence that occupations are high wage and high demand - Per OED data<sup>5</sup> these

occupations are high wage, high demand for Oregon. For the Portland area, practically all of these, including Food Service Managers, are also high wage/high demand (Appendix 5). Most of

<sup>&</sup>lt;sup>5</sup> <u>www.qualityinfo.org</u>

the career areas identified by the STEM Investment Council that build the economy and require significant STEM education align with our target occupations<sup>6</sup>. The OEA sites *wage* growth, not just job growth, as a component of a healthy recovery for the economy<sup>7</sup>. As wages increase and the economy grows, it will be dominated by service-sector industries such as leisure and hospitality. In 2017-18, we will articulate to CCI and to the OSU Cascades four-year degree hospitality program. The Oregon Business Plan cites the need for state support to affirm these types of degrees to secure the relationship between higher education and industry<sup>8</sup>. Occupations will be made explicit through communication as described in Section L.

#### I. <u>Equity</u>

#### Specific activities intended to recruit, provide support of, and retain historically

**underserved students -** In the past 20 years the District has grown 35% as low-income, primarily populations of color have been displaced from the region's urban core. In Multnomah County, poverty is highest in outer East Portland (at 25%) where the David Douglas School District is located.<sup>9</sup> **<u>81.9%</u>** of our students qualify for free or reduced lunch. More than half (58%) of the District's 10,823 students are students of color. This makes the District *one of the ten most diverse school districts* in Oregon<sup>10</sup>. 19.6% of students are English Language Learners and 10.8% are enrolled in special education (Appendix 6).

<u>Strategies to recruit and retain these students, as well as girls</u>: 1) The Board adopted an Educational Equity policy and instructional practices in 2013 (Appendix 7); 2) Partners will

<sup>&</sup>lt;sup>6</sup> <u>http://education.oregon.gov/Documents/archive/STEM-CTE%20Venn%20Diagram%20v2.pdf</u>

<sup>&</sup>lt;sup>7</sup> Oregon Labor Trends, October 2015

<sup>&</sup>lt;sup>8</sup> <u>http://www.oregonbusinessplan.org/industry-clusters/about-oregons-industry-clusters/tourism-hospitality/</u>

<sup>&</sup>lt;sup>9</sup> https://multco.us/file/34343/download

<sup>&</sup>lt;sup>10</sup> Oregon Educator Investment Board, 2015 Oregon Educator Equity Report

bring free programs, scholarships, outreach and internships specifically for low-income, diverse youth; 3) Continue participating in the "STEM Equity Pipeline"<sup>TM11</sup>. We are implementing an improvement process to increase and retain girls in CTE-STEAM programs of study; 4) The English Language Learners (ELL) department will expose students to career opportunities and post-secondary programs; 5) The MakerSpace Coach is required to bring experience teaching underserved students; we seek a bilingual candidate; 6) High School community partners will increase CTE awareness and provide ongoing support, including: academic tutoring, mentoring, skill building and college and career readiness. Many bring culturally responsive expertise for serving youth at risk of dropping out, low-income youth, refugees and ELL (Appendix 8); and 7) As the fiscal agent for the Portland Metro TLC, a "Teach Oregon" coalition, we will recruit and retain diverse educators who provide culturally responsive support to diverse students.

#### J. Diploma Connections

Academic support to help meet core academic credit requirements – The addition of Hospitality and Tourism Management and the Engineering program allows students to earn more credits, including dual credits through College Now (Section C). The MakerSpace will promote enrollment in more CTE pathways and thus more credits earned.

**Career related learning experiences that support Essential Skills** – Students are required to take PACE (Section G) where literacy skills, including digital, are reinforced. The MakerSpace and student-operated restaurant embed STEAM concepts as well as literacy skills: applying math to design and fabricate; using technology to solve problems and applying science principles to food chemistry; comprehending project instructions and writing reports; thinking critically; jointly solving problems; and planning and executing projects.

<sup>&</sup>lt;sup>11</sup> <u>http://www.napequity.org/stem/stem-equity-project</u>

**Personalization of the educational experience through support of the student plan** Students begin creating their Personalized Education Plan (PEP) in 8<sup>th</sup> grade, then refine it in Digital Literacy, a 9<sup>th</sup> grade required course. Counselors and CTE teachers continue assisting students in updating their PEP with coursework leading to post-secondary and career opportunities. Students will choose courses with technical skills and capstone projects focused on interests.

Activities that address needs of historically underserved students in achieving the diploma Project LAB promotes CTE *completion* not just participation (Outcome 5.2). 94% of DDHS students who completed 2+ CTE credits graduated within four years (per ODE's CTE Concentrator Report 2014-15). Community partners provide academic tutoring and mentoring for at-risk and culturally specific groups (Section I). The Kilt and MakerSpace increases student engagement and therefore attendance necessary to graduate. The District also provides credit recovery and summer school to ensure students meet graduation requirements.

#### K. <u>Sustainability</u>

Leaders work across conventional boundaries - The CTE Coordinator builds relationships with business, labor and education. We will leverage her expertise to create a strong Teacher Externship Program promoting teacher/industry collaboration to enhance and expand partnerships for CTE sustainability. We will engage teachers in a relevant way and increase employer engagement. The CTE-STEAM Team will also organize opportunities to not only articulate our vision to partners, but also to solicit and integrate input to foster connections.

Affirm, recognize, and celebrate valuable actions, initiatives, and leadership – The District will hold annual partner appreciation events to recognize their commitments. We will celebrate students and teachers through special events such as Senior Recreation Night and the "Apple Award," among others. The High School will invite partners to visit our MakerSpace and dine in

The Kilt in order to experience and celebrate our collective achievements. In 2015, the High School began distributing a monthly STEAM newsletter to engage our business partners; we will begin publishing student, staff and partners' leadership and achievements.

**Use the media to build a profile and relationship with the public** – The Kilt and the MakerSpace produce tangible products that students can readily showcase through the District's website, Facebook page and STEAM newsletter. Other opportunities include local newspapers, as well as partner websites and communications, e.g. the EMSP and MHCC's *Tech and Art*.

**Change regulations to provide a framework for future action** – Our Superintendent and Board are committed to CTE programs. Our Comprehensive Plan prioritizes creating connections with the broader community to support CRLEs. Vacant space in the High School has been reserved for future CTE programs. The STEAM Coordinator position was created in 2014 to integrate content. She is leading the transition to the Next Generation Science Standards (NGSS) and serves on the ODE Science Panel for NGSS and East Metro STEAM Partnership. Finally, students will experience CRLEs in a more relevant way through PACE (Section G).

**Collect data that will prove the effectiveness of the system changes** – The CTE-STEAM

Team and teachers will work with all partners to develop and disseminate data such as: students served and dollars leveraged; feedback from company employees about mentoring; whether our system is meeting employment needs; if students need other skills; student participation, completion rates and certifications awarded, etc. The District Grant Writer will assist with data. We will share outcomes with our Board, parents, staff and funders to show positive impact.

Additional funding for systems change projects - The District will leverage federal funds (21<sup>st</sup> CCLC and Perkins), general funds, in-kind, revenue and other grants to support out-of-school time programs; equipment maintenance and updates; the Engineering program, key staff,

construction and other needs. The Grant Writer will help to secure grants. David Douglas will explore two fee-generating opportunities to diversify funding—a "pay to play" fee for District residents to access the MakerSpace after hours and revenue generated from The Kilt to be added back to the program. Construction costs to upgrade facilities are one-time expenses.

#### L. Communication

**Communicating career pathway options and their purpose -** Staff will assist middle school principals to organize College/Career days, highlighting CTE pathways. As Oregon parents believe after school programs can and should offer STEM programs<sup>12</sup> we will use our after school and summer CTE-STEAM programs, in addition to our parent groups, e.g. Latino Parent Group, as a springboard to promote career pathways. The CTE Coordinator presents college credit information to CTE classes that articulate with MHCC. The CTE-STEAM Team and students attend industry events, e.g. annual "Manufacturing Day". Students receive information through bulletins, the College and Career Center website, announcements and forecasting. Through the Tri-County CTE Consortium, the CTE Coordinator delivers CTE presentations and seeks employer partnership engagement, e.g. at the Chamber of Commerce and industry events. The High School's Principal and Assistant Principal deliver CTE presentations at Board meetings twice per year.

<sup>&</sup>lt;sup>12</sup> http://www.afterschoolalliance.org/AA3PM/STEM.pdf

Area 1 - Improved and sustainable partnerships with business, industry, labor, and educational providers				
Project Outcome	Progress Markers	Expected Results		
1.1 Businesses' increased level of engagement helps students meet career learning needs	<ul> <li>18 businesses host teachers for Teacher Externship Program</li> <li>Businesses and community partners engage in guest speaking, tours, internships, etc. as measured by events and activities</li> <li>Identify CTE Advisory Boards to be strengthened</li> <li>New partners identified</li> </ul>	<ul> <li>20% more businesses host teachers for Teacher Externship Program in 2017-18</li> <li>Business partners commit to more services as compared to 2015-16 baseline assessment</li> <li>Increased industry partners on CTE Advisory Boards for 2017-18</li> <li>10 new partners committed (2017-18)</li> </ul>		
1.2 Students have more post-secondary opportunities through the District's increased alignment and articulation, as well as other collaboration, with post- secondary partners	<ul> <li>Students participate in new articulation with MHCC for 2015-16 (Natural Resources, Hospitality and Tourism Mgmt. and Health Occupations) as measured by credits</li> <li>3 new High School courses offered for articulation</li> <li>Explore dual credit options with Warner Pacific</li> <li>Explore "2+2+2" model with Warner Pacific and Central Oregon CC</li> </ul>	<ul> <li>Align with MHCC for Engineering program (2018-19)</li> <li>Articulate with Eastern Oregon University, CTE programs TBD (2017-18)</li> <li>Students participate in new articulation with CCI for 2017-18 as measured by credits</li> <li>10% more CTE students enrolled in College Now (2017-18)</li> </ul>		
1.3 Partners are sustained and strengthened, and teachers and students are encouraged, through recognition and opportunities to be involved in a variety of ways	<ul> <li>Partners invited to annual appreciation breakfasts (Feb 2016 and Feb 2017)</li> <li>STEAM newsletter is disseminated to more groups as measured by distribution list</li> <li>District's Communications Director facilitates publicity for partners and CTE programs as measured by posts, articles, etc.</li> </ul>	<ul> <li>Project Lab increases partners' awareness of CTSO events/activities (2017-18) as shown by numbers reached</li> <li>Partners, teachers and students recognized and included in special events (2017-18)</li> </ul>		

<u>Appendix F – (Corresponds with Sections D and E – Outcomes and Measures)</u>

	<ul> <li>Partners invited to CTSO events and to tour The Kilt and MakerSpace (beyond commitments) as well as special events</li> <li>Students recognized through media and Senior Recognition Night. Teachers recognized through Madia and Apple</li> </ul>	
	Award, etc.	
Area 2 – Improved student historically underserved stu	access to CTE programs of study idents.	y with particular attention to
Project Outcome	Progress Markers	Expected Results
2.1 Investment in infrastructure expands, enhances and revitalizes CTE programs	<ul> <li>Certified MakerSpace Coach is hired</li> <li>MakerSpace created and accessible to middle and high school students, including CTE and applied learning</li> <li>720 middle school and 100 alternative High School students have access to MakerCarts</li> <li>500 students/year access new Culinary room</li> <li>256 students enrolled in Culinary II/access reopened Kilt; 125 seats</li> </ul>	<ul> <li>All high school students are exposed to CTE programs in 2017-18</li> <li>20% more students enrolled in CTE programs in 2017-18 than 2016-17</li> <li>20% more historically underserved students accessing CTE in 2017- 18, compared to 2016-17 baseline data</li> </ul>
2.2 Community partners work with District to provide outreach, best practices and activities to recruit and retain students, particularly underserved youth	<ul> <li>Strategies developed through NAPE pipeline to recruit and retain girls to CTE and STEAM</li> <li>EMSP shares best practices strategies to recruit and retain underserved students</li> <li>Students participate in mentoring, career related projects, academic tutoring and other activities targeting underserved youth as measured by #'s served</li> <li>Parents and students increase awareness about CTE purpose and offerings</li> </ul>	<ul> <li>Increase in girls participating in CTE programs in 2017-18</li> <li>Best practices strategies implemented to recruit and retain underserved students (2017-18)</li> <li>20% more historically underserved students accessing CTE in 2017- 18, compared to 2016-17 baseline data</li> </ul>

Area 3 – Increased rigor in requirements, industry-rec	through workshops, after school activities and District communications as measured by #'s reached technical and academic content a ognized technical standards such	align to diploma as the Oregon Skill Sets, and
employability skills.		, j
Project Outcome	Progress Markers	Expected Results
3.1 Increased opportunities for certifications and trainings for students and teachers results in cohesive, rigorous CTE programs	<ul> <li>All 18 CTE teachers complete Teacher Externship Program</li> <li>MakerSpace equipment protocol is developed and implemented for certification</li> <li>Teachers trained/certified on MakerSpace modules as measured by completion</li> <li>10 (advanced) students eligible for training/certification on modules</li> <li>Students receive certification through community partner programs, e.g. Pathways to Manufacturing as measured by completion</li> </ul>	<ul> <li>CTE Teachers implement industry knowledge into CTE curriculum (2017- 18)</li> <li>All 18 CTE teachers trained/certified on MakerSpace modules (2017-18)</li> <li>Increase in students eligible for training/certification on modules (2017-18)</li> <li>Increase in students receiving certification through community partner programs, e.g. Pathways to Manufacturing (2017-18)</li> </ul>
3.2 Students acquire employability skills and apply industry-recognized standards	<ul> <li>More students participate in CTSOs (SkillsUSA, HOSA and FFA) as measured by enrollment</li> <li>Students complete PACE as measured by enrollment</li> </ul>	<ul> <li>30% more CTE programs will participate in CTSOs (2017-18)</li> <li>100% of CTE students will be provided information about CTSOs (2017-18)</li> <li>3 CRLEs provided in each CTE required course formerly delivered through PACE (2017-18)</li> </ul>
employers.	awareness of career opportunitie	s un ough exposure to
Project Outcome	Progress Markers	Expected Results
4.1 Increased CTE- STEAM activities and opportunities promoting	<ul> <li>776 eighth grade students reached at College/Career Days</li> </ul>	<ul> <li>20% increase in middle school students participating in CTE-STEAM out-</li> </ul>

partners expose students to multiple career pathways	<ul> <li>Increase in students reached through out-of- school time activities as measured by offerings and enrollment</li> <li>Increase in students reached during <i>school</i> <i>day</i> measured by partners' guest speakers, tours, mentoring, etc.</li> </ul>	<ul> <li>of-school time activities involving partners (2017-18)</li> <li>30% of CTE programs will develop out-of-school time activities (2017-18)</li> <li>50% of partners (business and community) will be involved in <i>school</i> <i>day</i> activities (2017- 18)</li> </ul>
Area 5 – Improved ability f wage and high demand occ	to meet workforce needs in the re upations.	gion with a focus on high
Project Outcome	Progress Markers	Expected Results
5.1 CTE program offerings increase relevancy and rigor to ensure students meet workforce needs	<ul> <li>Complete feasibility study for developing Engineering program</li> <li>Each of the 18 CTE teachers develops a capstone project specific to their program of study</li> <li>Students participate in career readiness projects, e.g. internships and others, with employers</li> </ul>	<ul> <li>District submits Engineering POS application to ODE in April 2017</li> <li>CTE teachers implement capstone projects (2017- 18)</li> <li>Increase in career readiness projects (2017- 18)</li> </ul>
5.2 Students acquire industry standard skills through experiential activities	<ul> <li>50% of CTE students take Technical Skills Assessment (2+ CTE credits) and are considered "completers"</li> <li>Students gain skills through variety of roles in The Kilt and MakerSpace, mentored by high wage/high demand industry professionals</li> </ul>	<ul> <li>10% increase in number of completers (2017-18)</li> <li>Increase in students gaining critical workplace skills in The Kilt and MakerSpace</li> </ul>

Activity	Outcome(s)	Timeline	Person(s)
	addressed		responsible
CTE-STEAM Newsletter –	1.1	Current,	CTE-STEAM
District & Partners		Monthly	Coordinators i.e., HS
			CTE Coordinator and
			STEAM Coordinator
Evaluate Business & CIT	1.2, 5.1	Current and	HS CTE Coordinator,
Programs, Design and		Ongoing thru	Administrator, CTE
Robotics Courses for future		Oct 2016	Teachers
Engineering Program			
FIRST Robotics, ACE Mentor	1.1, 1.3, 4.1	Current,	Community and
activities		Ongoing during	business partners,
		school year	students
Participate in National	2.2	Current,	CIE-SIEAM Ieam
Equity (NADE) Dinaling		ongoing	
CTE STEAM Toom Mosting	Aroug 1 through	Dec 2015 and	CTE STEAM Toom
CTE-STEAM Team Meeting	Aleas I ullough	then Monthly	(HS Principal Asst
	5	ulen Monuny	Principal and CTE
			STFAM
			Coordinators)
CTE-STEAM Coordinator	Areas 1 through	Dec 2015 and	CTE-STEAM
Meetings	5	then Weekly	Coordinators.
8		J	Administration
Communication via District,	1.3	Jan 2016 and	CTE-STEAM
school website and FB Page		then monthly	Coordinators, District
		and as needed to	Communications
		promote events	Director
MakerSpace Coach Position	2.1	Jan - Jan 2016	Human Resources,
Posted, interviews and hire			High School Admin,
			CTE-STEAM
			Coordinators
Summer Enrichment Program	2.2, 4.1	Jan 2016 and	CTE-STEAM Team
Planning		then monthly	
Develop Teacher Externship	3.1	Jan - Jan 2016	HS CTE Coordinator,
Program materials and			School Improvement
brochure (reflecting industry			Coordinator
criteria)		E 1 2014	
Required recipient orientation	Areas $1-5$	Feb 2016	2 members of CTE-
meeting in Salem	1.2		STEAM
Partner Appreciation and	1.3	Feb - Feb 2016	CIE-SIEAM Team
weicome (to Project)		and Feb – Feb	
BreakTast		2017	

# Appendix G (Corresponds with Section F—Activities and Timeline)

Develop schedule for partners	1.1, 1.2, 2.2	Feb – Apr 2016	Partners, CTE-
to provide various			STEAM Team
commitments: mock			
interviews, guest speakers,			
mentoring, internships, tours,			
etc. Partners begin at various			
times throughout grant period			
MakerSpace Coach Starts	2.1	Feb - Feb 2016	MakerSpace Coach
Develop MakerSpace Coach	2.1, 3.1	Feb - Feb 2016	CTE-STEAM
Professional Development			Coordinators
Plan			
Meet with Hillsboro Chamber,	1.1, 3.1	Feb - Feb 2016	CTE-STEAM
school district and			Coordinators,
Worksystems about their			Worksystems,
Teacher Externship Program			Hillsboro Chamber
models			and School Dist.
Culinary Construction	Area 1, 2.1, 3.2	Feb and Apr	Business Office and
planning and implementation	and Area 5	2016	Maintenance Dept.
meetings			
Specs and Bids for Culinary	Area 1, 2.1, 3.2	Feb – May 2016	Business Office and
Construction (following	and Area 5		Maintenance Dept.
prevailing wage).			
Review/develop structures and	Area 1, 2.1, 3.2	Feb - May 2016	Culinary teachers,
procedures and permits for	and Area 5		government agencies,
student-operated restaurant			Business Office, HS
(The Kilt)			CTE Coordinator
MakerSpace Coach	2.1, 5.2, 3.1, 4.1	Feb - Jun 2016	MakerSpace Coach
• Site visits			
Conferences			
Professional Learning			
Team			
Workshops			
College & Career Days at	4.1, 1.1	Feb 2016 and	HS CTE Coordinator,
middle schools		Feb 2017	College & Career
			Center, TOSA
Develop project data tracking	Areas 1 – 5	Mar - Mar 2016	CTE-STEAM Team
tools and procedures			
HS Community Partners, ELL	2.2	Mar 2016 and	Community Partners,
Dept., Special Education Dept.		ongoing	Counselors, ELL
develop awareness about CTE			Specialist, Special Ed.
opportunities and share with			Dept., CTE-STEAM
students and parents			Team
Summer Enrichment	2.2, 4.1	Mar - Mar 2016	HS CTE Coordinator,
Recruiting			middle school
			Counselors, students

Utilize Oregon Connections	1.1, 1.3	Mar 2016 and	CTE-STEAM
tool in partnership with EMSP		ongoing	Coordinators,
and Worksystems			business partners
Recruit industry professionals	1.1, 3.1, 5.1	Mar 2016 and	HS CTE Coordinator,
to host teachers within		then ongoing	business partners
Teacher Externship Program			
(TEP)			
School Board Presentation –	Areas $1-5$	Mar 2016	HS Administration
2x/year		Fall 2016	
		Spring 2017	
OACTE Conference	Areas I through	Apr - Apr 2016	CTE-STEAM Team
	5	A A 2016	(select members)
MakerSpace Coach travel to	3.1	Apr – Apr 2016	MakerSpace Coach
MakarSmann & Makar Carta	21522141	Amm Amm 2016	MalvarGrassa Casah
MakerSpace & Maker Carls	2.1, 5.2, 5.1, 4.1	Apr - Apr 2016	MakerSpace Coach,
vondors minimizes time):			Dusiness Office
store in vacant HS space			
MakerSpace shelving installed	21523141	$\Delta pr = \Delta pr 2016$	MakerSpace Coach
for tools and projects	2.1, J.2, J.1, 4.1	Арі - Арі 2010	District Maintenance
for tools and projects			Dent
MakerSpace Coach develops	21.52.31.41	Apr - Apr 2016	MakerSpace Coach
Professional Development	2.1, 0.2, 0.1, 11		CTE-STEAM
Schedule for middle and high			Coordinators
schools			
MakerSpace Training	2.1, 5.2, 3.1, 4.1	Apr – Sep 2016	MakerSpace Coach,
Modules occur			middle and high
			school teachers
Develop equipment protocol	2.1, 5.2, 3.1, 4.1	Apr - Apr 2016	MakerSpace Coach,
for teacher certification			CTE-STEAM
			Coordinators
Order Culinary equipment and	Area 1, 2.1, 3.2	May - May 2016	HS CTE Coordinator,
materials; store in vacant HS	and Area 5		Culinary CTE
space			Teacher
Culinary Alignment & Post-	Area 1, 2.1, 3.2	May - May 2016	HS CTE Coordinator,
Secondary Articulation	and Area 5		HS Administrator,
Meeting			Culinary Instructor,
			Cascade Culinary
		Mare I 2016	Institute
CIE Program Advisory Board	1.1, 2.1, 5.2	May - Jun 2016	HS ULE Instructor,
meetings			Auministration, CIE
			Dortners MUCC CTE
			Consortium Director
Senior Recognition Night	13	May – May	
Semon Recognition rught	1.5	2016	

Online Progress Report to	Areas 1 – 5	May - May 2016	CTE-STEAM
ODE			Coordinators and
			District Grants
			Manager
Culinary Construction Begins	2.1	Jun - Jun 2016	Contractors and
			Maintenance Dept.
Summer Enrichment (middle	2.2, 4.1	Jun - Jul 2016	Summer
and high schools)			instructors/providers,
Coding			Summer CTE
• Design			Coordinator, students
Robotics			
CTE Program Wheel			
MakarComp			
• MakerCamp			
Design Innovation	0.1	A A 2016	
MakerSpace Room equipped	2.1	Aug - Aug 2016	MakerSpace Coach,
& opened			District Maintenance
			Dept.
Culinary Room complete	2.1	Aug - Aug 2016	Contractors, Business
			Office, Maintenance
			Dept.
Structures, procedures and	2.1	Aug - Sep 2016	Culinary teachers,
permits in place for student-			government agencies,
operated restaurant (The Kilt)			Business Office, HS
			CTE Coordinator
Parent engagement workshop	2.2	Sep 2016 – Jun	Director of ELL and
series (6 sessions in		2017	Equity, District
collaboration with community			Grants Manager, SUN
providers) for culturally			Coordinator
specific groups, e.g. Somali			
Culinary Articulation in place	1.2	Sep - Sep 2016	HS CTE Coordinator,
with CCI			HS Administrator,
			Culinary Teacher,
			Cascade Culinary
			Institute
1 <sup>st</sup> round of students enrolled	Area 1, 2.1, 3.2	Sep - Sep 2016	HS Counselor.
in Culinary Arts II and begin	and Area 5		instructor, students
using commercial kitchen			,,,
Articulated credit to MHCC	12	Sep - Sep 2016	CTE Teachers
for NR and Hospitality	1.2		MHCC CTE
			Consortium Director
			HS CTE Coordinator
Program specific CRI Es	32	Sep - Sep 2016	HS CTE Coordinator
integrated within CTF	5.2	Sep Sep 2010	CTF Teachers
Programs (from DACE)			College & Corpor
			Assistants
	1		13515tailt5

Online Progress Report #2 to	Areas 1 – 5	Sep - Sep 2016	CTE-STEAM
ODE			Coordinators and
			District Grants
			Manager
Culinary students compete in	1.3, 3.2	Sep 2016 - Jun	HS Instructor,
SkillsUSA events		2017	SkillsUSA, students,
			<b>Business Partners</b>
Research for additional CTE	1.3, 3.2	TBD	HS CTE Coordinator,
Programs to participate in	,		HS CTE Teachers,
SkillsUSA			students
HOSA (CTSO)	1.3, 3.2	Ongoing	HS Instructors,
	,		students
FFA (CTSO)	1.3. 3.2	Sep 2016 - Jun	HS Instructors.
	,	2017	students
Solidify <b>Teacher Externship</b>	1.1.3.1	Mar – Jun 2016	CTE-STEAM
<b>Program (TEP)</b> dates and	,		Coordinators,
outcomes (visit industry, plan,			Administration, and
deliver, reflect)			District support
Final evaluation of Business &	5.1.1.2	Oct - Oct 2016	HS CTE Coordinator.
CIT Programs. Design and			Administrator, CTE
Robotics Courses for future			Teachers
Engineering Program			
Develop Engineering POS	Areas 1 - 5	Oct 2016 – Apr	HS CTE Coordinator.
courses		2017	Administrator.
			MHCC CTE
			Consortium Director.
			ODE
TEP luncheon with industry	1.1, 3.1, 5.1	Nov - Nov 2016	CTE-STEAM Team
professionals and teachers			
TEP teachers complete site	1.1, 3.1, 5.1	Nov - Nov 2016	Business partners,
experience			CTE Teachers
TEP Planning/Curriculum Day	1.1, 3.1, 5.1	Dec - Dec 2016	CTE Teachers and
			CTE Coordinator
Online Progress Report #3 to	Areas 1 – 5	Dec - Dec 2016	CTE-STEAM
ODE			Coordinators and
			District Grants
			Manager
CTE-STEAM afterschool	1.1, 2.2. 4.1	Feb - Feb 2017	CTE-STEAM
programs at middle schools			Coordinators, SUN
			Coordinator
Online Progress Report #4 to	Areas 1 – 5	Mar - Mar 2017	CTE-STEAM
ODE			Coordinators and
			District Grants
			Manager
Application to ODE to utilize	Areas 1 - 5	Apr - Apr 2017	CTE-STEAM
funds for summer			Coordinators and

			District Grants
			Manager
Implement updated TEP lessons	5.1	Feb - May 2017	CTE Teachers
TEP Reflection Activity $-\frac{1}{2}$ day	1.1, 3.1, 5.1	Apr - Apr 2017	CTE Teachers
Partner Appreciation & Tour of The Kilt and MakerSpace	1.3	Apr - Apr 2017	Partners, CTE Teachers, CTE- STEAM Team
Compile tracked data to produce and analyze baseline data for project; Develop strategies to improve CTE- STEAM enrollment for historically underserved students not represented well in CTE for 2016-17	Areas 1 – 5	May – Sep 2017	CTE-STEAM Team
Recruit & Forecast for Engineering CTE Program	5.1, 1.2	Mar – Apr 2017	Counselors, CTE Instructors
Convene Engineering Advisory Board	5.1, 1.2	Apr 2017 – Apr 2017	Asst. Principal, CTE Coordinator, CTE Teachers, Advisory members, MHCC Consortium Dir.
Complete & submit Engineering POS Application to ODE	5.1	Mar – Apr 2017	MHCC Consortium Dir., CTE Coordinator
Work with MHCC regarding alignment and articulation of Engineering POS	1.2	Mar – Apr 2017	MHCC Consortium Dir., CTE Coordinator, CTE Teachers
Final Report to ODE (Jan 2016 to June 2017 activities)	Areas 1 – 5	Jun - Jun 2017	CTE-STEAM Coordinators and District Grants Manager
After school CTE enrichment classes via SUN (at High School)	1.1, 2.2 4.2	Ongoing	CTE Teachers, SUN Coordinator
MakerSpace Coach Report Meetings (Budget, Outreach, Sue)	2.1, 3.1, 4.1	Ongoing	CTE-STEAM Coordinators, Administration, Grant requirements
Summer activities (paid for by 21 <sup>st</sup> CCLC funds); replicates 2016 activities	2.2, 4.1	Summer 2017	CTE-STEAM Coordinators, SUN

Summer activities concluded	2.2, 4.1	Sep - Sep 2017	CTE-STEAM
			Coordinators, SUN
MakerSpace open after hours	2.1, 3.1, 4.1	Sep - Sep 2017	MakerSpace Coach,
and to District community			SUN Coordinator
Summer activities supplement	Areas $1-5$	Oct - Oct 2017	CTE-STEAM
to final report due to ODE			Coordinators and
			District Grants
			Manager
Articulated credit to MHCC	1.2	Sep - Sep 2018	CTE Teacher, MHCC
for Engineering			CTE Consortium
			Director, HS CTE
			Coordinator

#### V. Bonus Narrative

#### A. Career and Technical Student Organizations (CTSOs)

**CTSOs embedded in the CTE project proposed (including impact on school environment and linkage to community partners) -** Students of the Hospitality and Tourism CTE Program will participate in SkillsUSA competitions. SkillsUSA assesses student skill development, demonstration and mastery. Students will participate in fundraising, managing projects, skills competition and public relations. Project LAB seeks to expand SkillsUSA to include the Construction Technologies, Business Management and Computer Information Technology CTE Programs. DDHS has an active HOSA (Health Occupations Students of America) Chapter that participates in leadership development, student recognition, and skill building events. We have added FFA events this year for students of the Natural Resources CTE Program.

Curriculum for CTSOs are embedded within CTE courses; learning and practice occurs in the classroom, with more intense preparation happening during after school enrichment classes. Participation in CTSOs will encourage students to interact with potential employers, learn from mistakes, build confidence, and persevere through challenges. Students' success derived from CTSO participation will ensure sustainability for CTE.

#### Describe the recruitment process and how interest will be built before high school

High school students are recruited from CTE courses, while middle school students are recruited via College & Career Days, after school SUN programs and summer enrichment activities.

Describe how this component will be integrated into the project and support the vision of

**the CTE Revitalization Grant** – CTSOs help to develop and integrate a common CTE language for the District, as well as business and post-secondary partners, so that all stakeholders articulate the benefits of CTE programs. Increasing participation in CTSOs will ensure sustainability.

#### B. Middle School Component

# Describe the middle school component of your proposed project (and how it will be integrated into the project and support the vision of the CTE Revitalization Grant) Increased Awareness – Middle school students will be exposed to, and participate in, Project LAB activities through College & Career Days, after school and summer programs. These activities will build awareness about CTE and increase enrollment in CTE Programs. Key Activity Offerings - Project LAB will offer an afterschool CTE-STEAM class, in partnership with Impact NW, at each of the district's three middle schools. Incoming 9<sup>th</sup> graders will be able to participate in CTE-STEAM programs including the Career Pathway Wheel program and Ninth Grade Counts, a program offering transitioning 8<sup>th</sup> graders a proficiencybased math curriculum. Students will explore various CTE Programs offered at the high school, boosting program enrollment. Programs will be offered through our high school's 21<sup>st</sup> Century Community Learning Center grant (21st CCLC). In addition, the High School will replicate summer 2015 CTE-STEAM summer programs for middle school students; offerings will include Coding, Design and Robotics courses with Innovation Academy/TAO and a MakerCamp with Impact NW. Leveraging the 21st CCLC grant and partnership with SUN makes these summer activities possible. Students will have access to the equipment in the MakerSpace and on the MakerCarts to create models of their innovations.

<u>Professional Development</u> - An important and innovative way the District will obtain middle school educator involvement and commitment is to provide professional development during inservice week (spring 2016 and 2017). Educators who complete the training will have access to MakerCarts and support with integrated lessons.

#### C. Out of School Time Programming

Describe the out of school time programming component of your proposed project (and how it will be integrated into the project and support the vision of the CTE Revitalization Grant).

<u>Summer activities include</u> the Career Pathway Wheel program for incoming 9<sup>th</sup> Grade students, as well as sessions such as Coding, Design, Robotics, MakerCamp, and Design & Innovation, an introductory Engineering course.

<u>After-school activities include</u> the middle school Career Pathway Wheel Program, offered through SUN, and many high school CTE-STEAM enrichment classes. In addition, students will have access to the MakerSpace; opportunities to participate in customized programs at the Rockwood Library's Innovation Station (MakerSpace), e.g. targeting underserved youth populations such as girls; experience in The Kilt including catering after school events; the CTSOs (Section A above), involving fundraising or community service; the ACE Mentor Program (industry mentoring and project design); Pathways to Manufacturing (through Impact NW—includes applying STEAM concepts); Project Proto (MHCC—includes training and mentoring through business leaders); FIRST Robotics (project design and building, leadership and competitions); and internships at sites such as Boeing (career-related learning). The CTE-STEAM Team organizes the activities with funding as outlined in the Section B above. Activities provide multiple career learning opportunities, mentorship, customized experiences and on-the-job training. They expose students to a variety of high wage/high demand jobs and strengthen our relationships with community non-profits, post-secondary and businesses.

#### D. Focus on Regional, Statewide or System Changes

David Douglas School District is strategically positioned to provide a local, regional and statewide CTE impact and maintain connections to key resources. Of the High School's 3,306 students in 2014-15, 81% participated in CTE programs, substantially contributing to a prepared workforce for the region. As a long-standing partner with MHCC and member of the Mt. Hood Regional CTE Consortium, we align secondary and postsecondary systems, such as statewide articulation agreements, transcripted postsecondary credits, and stackable credentials. This allows for collaboration and the ability to leverage funding to meet more students' needs. The District's comprehensive plan, vision and mission statements reflect our commitment to career-related learning and CTE-STEAM. The Superintendent and Board are upholding the plan by reserving more physical space in the high school and budgeting for key positions in our general funds, including the CTE Coordinator, STEAM Coordinator and MakerSpace Coach. These positions are key to developing business relationships and guiding a rigorous academic and technical program.

The STEAM Coordinator serves on the leadership committee of the East Metro STEAM Partnership. Focus areas include igniting partnerships which link in-school and out-of-school activities and formal and informal education goals; supporting CTE-STEAM programs through community and business partnerships; and strategies that increase participation of underrepresented groups the STEAM fields.

David Douglas participates in the Multnomah County *All Hands Raised Partnership*, a local adaptation of the national cradle to career initiative. In winter 2015, the Partnership will launch a new Collaborative Action Team to improve post-secondary enrollment, retention and completion rates and strengthen pathways to careers that pay a living wage.