

Cover Page

APPLICATION COVER PAGE

Project Name: Building the Hub of Entrepreneurship: Innovation and Ideation at Redmond High School
Amount Requested: \$231,700

Project Director: Ryan Beard, CTE Program Administrator/Tony Pupo, Principal		
District, School or ESD: Redmond High School		
Address: 675 SW Rimrock		
City: Redmond	State: OR	Zip: 97756
Phone: 541-923-4800	Email: ryan.beard@redmondschools.org	

Grant Fiscal Agent Contact: Kathy Steinert, Director of Fiscal Services		
District, Charter School or ESD: Redmond School District 2J		
Address: 145 SE Salmon		
City: Redmond	State: OR	Zip: 97756
Phone: 541-923-5437	Email: kathy.steinert@redmondschools.org	

Superintendent: Mike McIntosh		
District or ESD: Redmond School District		
Address: 145 SE Salmon		
City: Redmond	State: OR	Zip: 97756
Phone: 541-923-5437	Email: mike.mcintosh@redmondschools.org	

	Participating High School or Middle School Name <small>(add additional rows as needed)</small>	Lead Contact Name	Grade Levels	Student Enrollment
1.	Redmond High School	Ryan Beard	9-12	925
2.	Elton Gregory Middle School	Tracie Renwick	6-8	585

Building the Hub of Entrepreneurship:
Innovation and Ideation at Redmond High School
Redmond High School, Elton Gregory Middle School

Redmond High School is creating an Entrepreneurship and Design program to train our community's next generation of innovators and doers. Modeled after the Hasso Plattner Institute of Design at Stanford University (the "d.school"), this project will create a program dedicated to the creation and ideation aspects of business development. We will physically redesign the classroom environment to promote innovation and collaboration: reconfigurable, technologically advanced, with prototype capabilities. Innovative curriculum will be adopted, using Design Thinking concepts developed and taught within the walls of the d.school, and feedback from our business and entrepreneur partners. We will break up the traditional silos that education programs exist in by physically creating doorways to adjacent classrooms, and building in coordination time between entrepreneurship students and students from other programs. Partners in this project include Elton Gregory Middle School, Central Oregon Community College, Oregon Tech, Oregon State University-Cascades, Small Business Development Center @ COCC, Redmond Economic Development, Inc, Better Together, RDD Enterprises, Esro Industries, Straw Propeller Gourmet Foods, Eric Spieth, Current Conceptions, McConnell Labs, and Medline Renewal.

B. CTE Revitalization Grant Vision: Central Oregon is a hub for new business and innovation. To quote one of our partners, there is an “entrepreneurship ecosystem” here. Maker-spaces and Tech-spaces abound, innovative products are produced, and leading-edge Entrepreneurial training and certification is available locally. This is not just a local movement, however; nationally, entrepreneurship and Design Thinking are at the forefront of quality education programs. As advocated by the U.S. Department of Labor and the Department of Education: *“Entrepreneurship education as a building block for a well-rounded education not only promises to make school rigorous, relevant, and engaging, but it creates the possibility for unleashing and cultivating creative energies and talents among students who might launch the next Teach For America, Kahn Academy, or Blackboard – entrepreneurial ideas such as these are the seed for our future economic growth and competitiveness.”*⁽¹⁾ Redmond High School is building on this movement by creating an Entrepreneurship program at our school.

Our **vision** is to create this “rigorous, relevant, and engaging” program. It will be modeled after the Institute of Design at Stanford University (the “d.school”), using an innovative physical environment and curriculum to teach the creative and ideation aspects of business development ⁽²⁾. Students in the program will learn skills that can be applied to any industry or discipline, thus opening up three pathways after graduation: school to work or business start-up, a two-year A.A.S. or A.S.O.T from Central Oregon Community College (COCC), a minor in Business and Entrepreneurship from OSU-Cascades with a possible four-year degree in Design and Entrepreneurship, or a four-year B.S. in Entrepreneurship/Small Business Management from Oregon Tech.

To accomplish this revitalization, we will adopt Design Thinking philosophies into our curriculum, and redesign the physical space to reflect its three

tenets: inspiration, ideation, and implementation. Through mentors, internships, guest speakers, and tours, local business owners and entrepreneurs will connect with students, providing real-world experience. Our students will mentor local middle school students as they teach elements of the program. Students will have practical experience and scholarship opportunities through the setup of e-commerce sites led by one of our partners, and will present business or product concepts to partners at the newly created Redmond Venture Conference. STEM philosophies are incorporated by taking advantage of our robust Manufacturing Technology program's rapid prototyping and production capabilities. Finally, we will establish a technical writing course within the program, providing the applied writing skills needed for business and industry success.

All of this will be overseen by the CTE Program Administrator, a building-level position created through our last revitalization grant. Previously grant funded, our administration dedicated a full 1.0 FTE to continue the position in the years to come.

Innovation: *“Design thinking is a human-centered approach to innovation that draws from the designer's toolkit to integrate the needs of people, the possibilities of technology, and the requirements for business success.” —Tim Brown, IDEO president and CEO.*

Innovation is at the heart of Design Thinking, and therefore at the heart of this project. It completely rethinks the traditional business class environment and curriculum: the classroom is open, infinitely reconfigurable, and intentionally gets students out from behind their desks and doing, while teaching empathy (i.e. a human centered approach) as the core of their design and business concepts.

Entrepreneurship and design applies to students of all disciplines, from engineering to environmental science. As such, this project breaks up the traditional silos that exist in education. We plan to leverage this universal appeal to create Panther Tech, our student-run enterprise. Team taught by our business and manufacturing teachers, Panther Tech will foster collaboration, work-based learning, and provide sustainability for the program. Our planned Summer Business Institute, a weekly open-lab during the summer, ensures that students have support during these off months, and critical business connections are maintained outside of school time.

Finally, innovative outreach is at the core of this grant proposal. With the success of our last revitalization, Redmond High School has been a model for effective community outreach. Business, education, and community partners have gladly committed to supporting the program through internships, mentor programs, program alignment, scholarship opportunities, tours and guest speakers, and as advisors. The importance of this outreach cannot be overstated. According to the Kauffman Foundation, *“entrepreneurship education naturally has to be innovative.*

Teachers...can no longer confine their approach to blackboard-style classrooms wherever they are operating. They have to expand their approaches to engage the private sector and experiential initiatives that bring entrepreneurs to educational establishments if they are to graduate more people who actually create successful startups rather than just learn about entrepreneurship.”⁽³⁾

Integration: This project integrates all elements of the proposal in one cohesive program leading to student success. Our **remodeled classroom** will reflect the **innovative curriculum** within. This curriculum has clear **outcomes**, with intentional **pathways** created for students within the program of study. Many of these

outcomes are a direct result of the strength and sustainability of our **partnerships**. Utilizing these **community resources**, our students will have tremendous learning opportunities both during and **out of school time**. This is especially relevant to our **underserved population**, our Hispanic and low-income students, who will have access to training and mentor opportunities in and out of class from business and industry. **Progress markers** will track the success of the project, and it addresses **core academic content** through the creation of a Technical Writing course, with alignment to Common Core standards. **STEM**, and in truth **STEAM**, will be integrated, with the collaborative opportunities in Manufacturing, Art, Technology, and Engineering that are inherent in Design Thinking. Our district has committed to the sustainability of this project with significant **in-kind resources**, and the continued funding of the **CTE Program Administrator position**. Our timeline is established, and the program will be fully **sustainable** by June of 2017.

Expansion and Growth: Our decision to build an entrepreneurship program was based on a “perfect storm” of factors. After several years of declining enrollment numbers, our business program was pared down to one half-time teacher. At the same time, COCC unveiled an innovative program in entrepreneurship and design, the Center for Entrepreneurial Excellence and Development (CEED), and we revitalized our manufacturing program. With a cutting-edge post-secondary option locally available, and one of the best-equipped prototype and fabrication training facilities in the region, the choice to start an entrepreneurship and design program was an easy one. Our business teacher was brought back to full-time, and we offered a single Entrepreneurship class. Such was the interest, with nearly 60 students signing up for one class, that a second class was added. We plan to grow the program further by

adding a full second year of entrepreneurship training, and a third year Entrepreneurial Management Team. This last will be a work-based learning experience composed of students from all programs as the team managing Panther Tech. The continuation of the CTE Program Administrator position facilitates the growth in partnerships as the number of students available for work experience and internships grows. Between the Entrepreneurial Management Team and these internships, students will have multiple opportunities for **experiential learning**.

Collaborative opportunities between programs will also grow. With a robust manufacturing program next door, and plans for a roll-up door between, products designed and developed in the entrepreneurship lab can be taken directly to the manufacturing lab, prototyped, tested, and produced in-house.

High Wage, High Demand: Design Thinking philosophy is rooted in high wage and high demand. At its core is the premise of developing products from an empathetic point of view; product design based on user need or **demand**. Based on data from our partners at the Oregon Employment Department, the top growth industries in Central Oregon are Construction, Professional and Business, Manufacturing, Education and Health, Leisure and Hospitality, and Retail (**Appendix E**). Entrepreneurship applies across all of these industry clusters, providing students with valuable training to better design and produce goods based on the current demand. And Central Oregon happens to be a haven for small entrepreneurial ventures. Companies here with 20 or less employees employ 43% of workers compared to 33% statewide, while those with less than 5 employees employ almost 12% of workers compared to 8.8% statewide.

Entrepreneurship also leads to high wages. The Kauffman Center for Entrepreneurial Leadership found that graduates from a university entrepreneurship

program earned an average annual income that was 27% higher, and they accumulated 62% more in personal assets, than non-entrepreneurship graduates⁽⁴⁾. Should our students directly enter the workforce, they'll have a strong understanding of the business, and opportunities in high wage management or supervisory positions. Should they aspire to start their own business, they'll have the skills and contacts to do so. If a two-year or four-year program is their goal, they'll take with them a strong foundation for success in higher education. Regionally, in any of these pathways, management and supervisory jobs are in the top 10 high wage high demand occupations, according to OED data (**Appendix F**). For a school with a low-income population at 49%, the opportunity for a living wage or better job can be a tremendous motivation. High wage and high demand. Good Design Thinking isn't good without it.

C. Partnerships: With the goal of creating the next generation of innovators and doers, in a region rich with entrepreneurs and entrepreneurial training, our partnerships are perhaps the single most important element of our project. We have a wealth of local business resources, incredibly strong relationships with our local post-secondary institutions and economic development organization, and we are active members of our Regional Achievement Collaborative, Better Together. In this rich environment, our partners have been instrumental in the **development** of the project.

As we **implement** this project, the role of our partners will be based on the strengths and expertise of each. COCC, after completing its own Entrepreneurial Development center, has been a tremendous resource. Our physical space, curriculum, and pathways are based on their feedback. **Articulation** agreements and **Expanded Option** opportunities are being worked on through COCC, as is **alignment** with

Oregon Tech and OSU-Cascades. OSU-Cascades, in fact, are in the process of identifying Design and Entrepreneurship as a possible next major they will offer, and have invited us to be part of the conversation around curriculum and alignment. In their words, our effort “could not have come at a better time.” Our feeder middle school provides outreach opportunities, offering students a chance to teach and mentor future students. Our local economic development organization, REDI, has offered a data collection opportunity, and continues to be a resource for additional partnerships. The Small Business Development Center (SBDC) has offered training, business development tools, and further community and business partner connections. Most of our business and industry partners are entrepreneurs, and have offered guest-teacher services, internship opportunities, mentorships, and even scholarship funding for our students. These last two provide unprecedented resources for our **underserved population**; our low –income and Hispanic population. Access to business mentors, economic development, and post-secondary education provides these students with ongoing resources and support previously unavailable.

Our strong partnership with economic development, and participation in multiple regional efforts such as Better Together, only serves to increase collaboration opportunities and therefore strengthen relationships. Coupled with the continuation of the CTE Program Administrator position as a liaison, the **future** of our partnerships is solid. It is the role of our partners as advisors, however, that ensures we continue to offer innovative entrepreneurial education, relevant to current trends and aligned with postsecondary options, for years to come.

All of these partnerships have been intentionally fostered to lead our students to **high wage and high demand occupations**. REDI and OED have access to

businesses and regional data to ensure that we are targeting these occupations in our partnerships and curriculum. Our established business and entrepreneurial partners are, by nature, committed to innovation and therefore high wage and high demand products. Finally, input from our post-secondary partners led us to Design Thinking curriculum, the core of which is rooted in finding the high demand product.

This is truly a community effort; all of the partners have a vested interest in the success of the program and its students, and have committed valuable time and resources. In the words of one of our business partners, “I can’t *make* time, but I feel strongly enough about this that I can *find* the time.”

D/E: Project Outcomes, Evaluation Progress Markers and Results:

Area 1 - Improved and sustainable partnerships with business, industry, labor, and educational providers.		
Project Outcome	Progress Markers	Expected Results
1.1 Increase the number of business partners.	Add 1 to 2 business partners per term, tally at the end of every term.	Increase business partners from 6 to 14 during the life of the grant, with an intentional cap at approximately 25 partners for manageability.
1.2 Maintain regular contact with all partners involved in the project.	CTE Program Administrator and Business teacher keep track of each contact with partners.	Each partner will be contacted at least bimonthly, including summer months, for a minimum total of 6 per year.
1.3 Align program curriculum and environment to postsecondary opportunities, create pathways to career and postsecondary options	Establish regular meetings or contacts (1x monthly) with education partners to discuss outcomes. Advisory meetings with CEED program developers to identify critical classroom design elements.	Creation of a document outlining the pathways from RHS to postsecondary education. Physical space redesign aligned with CEED to promote alignment and Design Thinking curriculum
Area 2 – Improved student access to CTE programs of study with particular attention to historically underserved students.		

Project Outcome	Progress Markers	Expected Results
2.1 Number of students taking classes in the entrepreneurship program	Tally students in Entrepreneurship courses at the end of every term.	Increase in number of students taking entrepreneurship courses
2.2 Increase the number hours students serve as mentors to middle school students	Students track and report the number of hours they spend mentoring at Elton Gregory Middle School.	25 mentor hours(5 students, 5 hours per) at the conclusion of 2016. Anticipate this doubling 2016-17.
2.3 Increase the number of middle school students participating in the high school outreach program, with a focus on underserved students.	Track number of students that participated in the mentor program. Report number at the end of each mentor cycle. Underserved participation will be tracked by CTE Administrator	20 middle school students mentored in 2015-16, increasing to 40 in 2016-17. Of these, goal is approx. 60% are free and reduced population.
2.4 Increase number of mentors/partners in the program with underserved background or status	Every term, count number of mentors available for students in each of the listed underserved populations.	Addition of 2 mentors per term in any of the listed underserved populations.
Area 3 – Increased rigor in technical and academic content alight to diploma requirements, industry-recognized technical standards such as the Oregon Skill Sets, and employability skills.		
Project Outcome	Progress Markers	Expected Results
3.1 Number of students passing technical writing course	Track data for CTE students passing Technical Writing, compare to CTE student performance in conventional English 2	Increase passing rates from _____ to _____ after taking technical writing.
3.2 Increase the percentage of CTE students passing writing attainment (1S3)	Track official state data (TSA) on CTE passing rates at the conclusion of the school year.	Increase percentage of students meeting essential skills in writing from 69% to 80%.
3.3 Increase the number of college credits earned by students in the program, through	Track data from community colleges on number of credits earned by all students in business and	Increase in number of credits offered to students, and add 10 credits taken by students each year, from 13

articulation or Expanded Options	entrepreneurship classes.	in 2014-15 to 23 in 15-16, and 33 in 16-17.
Area 4 – Increased student awareness of career opportunities through exposure to employers.		
Project Outcome	Progress Markers	Expected Results
4.1 Increase the number of students in internships or job-shadow experiences.	Track number of credits earned by students in Internship or Work Experience classes.	50% of entrepreneurship students will earn an Internship or Work Experience credit by the end of 2016. 75% by the end of 2017.
4.2 Number of contact experiences students have with business partners or post-secondary students	Tally number of guest speaker days or tour days at the end of each term. Tally opportunities students have to present to partners.	Students will have a minimum of 10 contact opportunities with partners per year.
Area 5 – Improved ability to meet workforce needs in the region with a focus on high wage and high demand occupations.		
Project Outcome	Progress Markers	Expected Results
5.1 Increase the number of students earning the NCRC	Plan for every student to take the NCRC as part of the entrepreneurship course.	By 2016: Entrepreneurship students earning the NCRC: 70% at Bronze or better, 50% at Silver or better.
5.2 Keep program connected to regional trends in workforce needs and challenges	Annual meetings with Oregon Employment Department to obtain regional high wage and high demand data, annual data collection project coordinated with REDI	Students utilize the data in their business development plans by Fall 2016
5.3 Number of students earning credits and/or certificates from CEED	Track number of students articulating credits or taking classes through Expanded Options at CEED, and earning certificates	30% of students in the entrepreneurship program will have credits from COCC/CEED, with 2 earning certificates through the program by 2017

F. Activities and Timeline:

Activities for this project began during the spring of 2015, when the decision was made to offer an entrepreneurship course at Redmond High School. Based on the overwhelming response from students, our business teacher was restored to full time, and two entrepreneurship courses were offered.

Activity	Outcome(s) addressed	Timeline	Person(s) responsible
CTE Program Administrator Position retained	1.1, 1.2, 2.3, 4.1, 5.2	Fall 2015- Spring 2016	Principal, Superintendent
Two introductory Entrepreneurship classes offered.	2.1, 3.3	September 2015- February 2017	Principal, Business Teacher
Resources and manipulatives purchased to start entrepreneurship classes	1.3, 2.1, 2.2, 2.3	June 2015- September 2015	Principal, Business teacher
Active recruitment of additional partners.	1.1, 1.2, 2.4, 4.1, 4.2, 5.2	January 2016	CTE Program Administrator, Business Teacher
Begin business, education, community partner mentor and guest speaker program	1.2, 4.1, 4.2, 5.1, 5.2	January 2016	CTE Program Administrator, Business Teacher, Program Partners
Equipment: wireless projection system, rolling desks, chairs, tables, whiteboards, t-walls. Cubes (see d.school resources, Appendix A & B). Flat screen monitors, new computers at stations (8)	1.3, 2.1, 5.2	January- June, 2016	CTE Program Administrator, Business Teacher
Purchase Activity Buses using in-kind resources from district	2.2, 2.3, 4.2	February - March, 2016	CTE Program Administrator, District fiscal services
Middle School mentor program begins	2.1, 2.2, 2.3	March-April, 2016	CTE Program Administrator,

			Business Teacher, EGMS Leadership Teacher
Marketing of program to middle school student population	1.3, 2.1	March-April, 2016	CTE Program Administrator, Business Teacher, EGMS Administration
Students in Entrepreneurship courses take National Career Readiness Certificate (NCRC) exam	1.3, 3.3, 5.1, 5.2	March/April 2016	CTE Program Administrator, Testing proctor
Teacher planning time for Technical Writing course	3.1, 3.2, 5.1	May-June, 2016 August-September 2016	CTE Program Administrator, Business Teacher, English/Writing Teacher
Business classroom remodel: Windows and roll-up door between entrepreneurial lab and manufacturing lab, writable surfaces installed, wireless projection system installed	1.3, 2.1, 5.3	June-August 2016	RSD Facilities Services, CTE Program Administrator, RHS Principal, Business Teacher, contracted services.
First official cohort enrolled in Entrepreneurship program, implementation of Design Thinking curriculum	1.3, 2.1, 3.3, 4.1, 4.2	Sept. 2016 - March 2017	Business Teacher
Bi-weekly tours to education, community, and business/industry partners	1.2, 2.4, 4.1, 4.2, 5.2, 5.3	Sept. 2016 - March 2017	Business Teacher, CTE Program Administrator, Program Partners
Students enrolled in Technical Writing course	3.1, 3.2, 5.1	March 2017	Technical Writing Teacher
Redmond Venture Conference Event	1.2, 1.3, 4.1, 4.2, 5.2	May/June 2017	Business Teacher, CTE Program Administrator, Program Partners

G. CTE Program of Study Design: Our goal with this project is to **enhance** our Business program of study. Our **activities** include adding a two-credit cycle of Entrepreneurship courses, created with intentional **pathways** to work, 2 year, or 4 year postsecondary options. Curriculum is based on input from business and education partners, ensuring relevant **industry-standard training** and easing student transition **beyond high school**. Our planned classroom remodel is vital; it promotes the innovative Design Thinking philosophy while replicating the environment at CEED. New doors and windows foster open collaboration between programs. Concepts of Design Thinking **align** with Common Core State Standards in areas of writing, financial literacy, economics, and social science analysis (**Appendix C**).

Employability skills are incorporated into all aspects of the curriculum: students will interact with business partners regularly, take ownership in their startups, and present concepts or products at the Redmond Venture Conference. Workplace readiness will be assessed through the National Career Readiness Certificate (NCRC).

This design as outlined above **addresses our vision** by building and sustaining robust partnerships with business, education, and community organizations. These partnerships make possible the 3 pathways for students by ensuring that our program outcomes align with postsecondary options and industry standards. It creates a complete, innovative program to teach business concepts and creative ideation; skills that are recognized in business as leading to high wage high demand jobs⁽⁴⁾. As a result, in all aspects, our program meets the needs of our **underserved student population**. Our **free and reduced** students will have access to this training, as well as to low-cost or free college credits. Research suggests that an entrepreneurial education program (EEP) may have an effect on motivating at-risk students to stay in

high school, with higher graduation rates and lower dropout rates for **minority** students. Additionally, minority students graduating from an EEP are statistically more likely to enter into **STEM** professions, and earn more on average, when compared to students who did not go through an EEP⁽⁵⁾.

H. High Wage and High Demand Occupations: In Central Oregon, our identified high wage and high demand occupations are in manufacturing, health care, tourism and hospitality, construction, and professional/business (**Appendix E**). While the natural connection for entrepreneurship is to the professional and business sector, students focusing on virtually any occupation will benefit from an entrepreneurial education. From the U.S. Department of Education and U.S. Department of Labor:

“Whether students are preparing for college and careers in health care or education, business or technology, construction or architecture, all students should have the opportunity to develop entrepreneurial skills. Aspiring doctors need to know how to start and manage their own medical practices, just as aspiring electricians and auto technicians need to learn how to launch their own contracting businesses and auto shops. Career and Technical Education (CTE) can help students develop the skills necessary to become successful entrepreneurs by integrating entrepreneurship education with an academic and technical focus⁽¹⁾.”

In addition to its broad application, setting up students on an entrepreneurial path will lead to future success. Studies have shown that university students from entrepreneurial programs, on average, earn over \$12,000 a year more than their non-entrepreneurial counterparts, have more personal assets, are more likely to be employed full-time, and generally report higher job satisfaction⁽⁴⁾.

Our pathways through the entrepreneurship program are already in progress. Partnerships with business and economic development create a path to the workplace, or even business startup. COCC, OSU-Cascades, and Oregon Tech have committed to **alignment and articulation** agreements. Once established, these paths will be **communicated** to students through presentations given to incoming middle school students, and documents to visually outline the scope and sequence of the new program along with post-graduation options. These will be issued to our counseling staff, to parents and students, and made into posters to be displayed prominently about the school.

I. Equity: Based on equity audit data from last year, gender and ethnic population percentages in our business program are about equal to our school (**Appendices G & H**). In contrast, last year our free and reduced population in CTE programs is about half of our total population, 25% compared to 49% schoolwide.

To address this discrepancy, and maintain balance elsewhere, we will employ several strategies to **recruit** to the program. A focused marketing campaign to promote the opportunity for high wage high demand employment, and low cost or free college credits, will target our free and reduced population. We will connect with iAvanza! (6), a class through COCC to encourage Latino/a high school graduation and higher education, to promote entrepreneurial education program (EEP) benefits. By intentionally connecting entrepreneurship to other disciplines and emphasizing the “greater good” philosophy of design thinking, we will continue the trend of gender equity in business courses. Finally, the “cool” factor of design thinking must be

mentioned; in 2014 the d.school accepted just 5% of its applicants (7). Our plans for a cutting-edge curriculum with an innovative classroom space will engage all students.

All of our partners have committed to working with students in some capacity. This increase in community resources will serve to **support and retain** our underserved population through real-world connections. We will continue to intentionally recruit female and Hispanic partners, giving all students in the program access to mentors. We will also create buy-in by flipping this formula, with our students serving as mentors to middle school students. Our innovative curriculum will motivate and inspire to retain students, and scholarship opportunities offered by our partners provides further motivation.

J. Diploma Connections: This project, together with the partnerships we've created, work to meet Oregon's **40/40/20** goal. With entrepreneurial training steeped in innovative Design Thinking and influenced by our business partners, our students going straight into the **workforce** will be well-equipped and well connected at graduation. Our partnership with COCC has built a collaborative relationship, with regular meetings planned to align our programs and curriculum. This ensures that students seeking their **2 year A.A.S. or A.S.O.T.** will graduate either on pace or ahead of the next step in their training. Similarly, we have partnered with both Oregon Tech's and OSU-Cascades' business programs to work on program alignment and possible articulation, and have been invited to work with OSU-Cascades as they build curriculum for their anticipated Design and Entrepreneurship major. Credits earned from COCC will transfer directly into their **4 year degree** programs. All of these relationships will grow through regular meetings, and our continued participation in regional workgroups

like Better Together, our Regional Achievement Collaborative focused on placing students in a **career related learning experience**. The rich, relevant, hands-on curriculum is a unique blend of **academic and career-related knowledge**, providing the student with skills for success, whatever their entry point into the workforce. Such **extended application** will be a constant presence in the program; students will be working with real entrepreneurs on real business projects. This will culminate in our planned Redmond Venture Conference, where students will present their startup concepts to community members and potential investors.

To support students in their **essential skills** requirements, we plan to offer an applied Technical Writing course, teaching business writing techniques. Through our partnerships with COCC, Oregon Tech, and OSU-Cascades, we will increase the number of articulated credits we offer, and the availability of Expanded Options credits, giving our students low-cost and no-cost college credit options.

K. Sustainability: Based on the experiences of our previous manufacturing revitalization, we recognize the critical importance of strong partnerships as a foundation for the sustainability of CTE programs. The continuation of the CTE Program Administrator position as a liaison to partners is a tremendous asset, but there is no replacement for directly connecting students to partners. To this end, a unique solution was proposed: in our budget we have included the salary of our business teacher for one year, and the district has committed in-kind resources to purchase two activity buses for the program. Without this funding method, our district would be unable to provide resources to purchase buses for the program. These buses will transport students to conferences, business meetings, tours, and mentor meetings on a

regular basis. Individually, these are all important elements of our entrepreneurial program. Collectively, however, they accomplish the critical task of building and sustaining a connection between student, program, and partners.

The need for these buses became evident during the revitalization of our manufacturing program. For a variety of reasons, transportation in our district has not been reliable; drivers or buses have not been available, trips have been cancelled, or costly last-minute rentals arranged. In the end, while our manufacturing partnerships remained strong, we weren't able to take students to industry. Most of the effort fell on industry to come to us, a scenario we hope to avoid in entrepreneurship.

Transportation sustainability must also include maintenance. Our Automotive Technology students will do basic maintenance, and newly approved Career Pathways funding will be used to pay for semi-regular expenses such as tires, belts, and hoses. Priority for use will always go to our business and entrepreneurship program, but if available, our other CTE programs will have access as we build the model of strong partnership and collaboration between our programs of study.

Sustainability further involves planning for future expenses of the entrepreneurship program after the life of the revitalization grant; this will be accomplished through income generated by the student-run enterprise, Panther Tech. Product ideas that are generated by students in the entrepreneurship program will be prototyped and produced by the students in the manufacturing and engineering programs. These products will be sold and/or auctioned off either during the year through e-commerce sites, or at the end of the year during the Redmond Venture Conference, an on-campus 'showcase' venue that is open to the community. Partners will witness first-hand the *fruits of their labor* as student projects and products are on

display for viewing and for sale. Once again, experiential learning will be realized as students manage, organize and oversee all elements of the e-commerce sites and community showcase venue.

L. Communication: Going hand in hand with sustainability, our communication of the partnerships and career pathway options is the system that keeps our program strong. Our entrepreneurial partners reflect the infinite pathway options for students; from jewelry to aviation to college curriculum, each product and path they have taken is different. Our message will be that the outcome of this program isn't a specific product or job. Instead, students getting this training can apply it to any area that interests them. In the end, it is a universal career pathway, the "skeleton key" that unlocks careers in virtually any discipline.

We will use to a variety of strategies to communicate this message. Through the **advisory board** meetings, partners will learn about new programs and have an opportunity to provide feedback into the program. We will issue a **monthly newsletter** to parents, partners, community members, and fellow educators to keep them up to date. Our **career pathways** within the program will be made into a **handout and poster** for distribution to prospective students, school counselors, staff and parents. As part of our partnership with Elton Gregory Middle School, we will also provide this pathway handout to their counselors for distribution to students, and present it during the annual 8th grade visitation/scheduling day. Finally, on a semi-regular basis, we will send a small group of students to represent the program at the Redmond Chamber of Commerce Coffee Clatter, a weekly gathering of community and business leaders.

Bonus Narratives

A. Career and Technical Student Organizations (CTSO's): Redmond High School currently has two CTSO's that will benefit through this project, our FBLA and SkillsUSA chapters. With the addition of entrepreneurship, and its multi-disciplinary appeal, we are already seeing SkillsUSA students also joining FBLA. Our FBLA chapter has historically recruited through the business classes. Now, with the addition of entrepreneurship, the recruiting pool has instantly become much more diverse. Students from all disciplines are recognizing the value of business and entrepreneurial savvy, and seeking extended training to develop. Further, the planned outreach and mentoring to our feeder middle school will raise awareness at the lower grades.

FBLA is responsible for several community service activities every year, raising funds for a variety of causes. As a result of our outreach for this grant, our FBLA chapter is now involved in a different sort of community service, recently connecting with our partners in economic development to develop an annual survey of traded sector industries. This information will be collected to address any strengths or weaknesses in the supply chain, to recruit industry, and generally assist in economic development. As the data will be collected annually, the long term results could have a dramatic effect on our local economy. It is a tremendous community project; students will gain valuable experience through interviewing business owners, and knowledge about logistics issues relating to business operation.

B. Middle School Component: Partnering with the middle school was a high priority in creating the plan for this program. Word of mouth can certainly help in getting students to take entrepreneurship classes, but as a new program, we must raise awareness in our future student population. To accomplish this, we planned a 1 week “Shark Tank” style competition, led by Redmond High School students. When we approached the administration at Elton Gregory Middle School (EGMS) with our plan, they were beyond enthusiastic. Within the span of 10 minutes, we were connected with their leadership teacher, and working out the best time of year in the schedule to send our students over.

Starting small, we will send a group of FBLA and entrepreneurship students over every day for a week. These students will give a series of mini-lessons on Design Thinking and product development. EGMS students will then work in teams to create a product or concept, complete with prototypes, and a presentation. This will culminate in a pitch to a panel of business and community partners. Strong products or concepts have the potential to be invited to present at the Redmond Venture Conference, where high school students will be presenting their own ideas to a larger group of partners and even potential investors.

C. Out-of-School-Time Programming: A significant feature of our program will involve our students making connections with our community, business, and education partners. Much of this will happen beyond the normal school day or calendar. After school or during summer, our students will serve as mentees of established entrepreneurs in internships, attend entrepreneurial courses through CEED, and work with our local Economic Development on data collection projects. Preparation for and participation in our year-end Redmond Venture Conference will require significant after-school time. We have students attending the first ever Oregon Outdoor Startup Weekend held at COCC, a weekend intensive geared toward product design and development.

An exciting outcome of our program is the student creation of a product or concept for the market. Students who are successful in this will need support over the summer months to maintain and grow their business. To this end, we're creating the Summer Business Institute, a once-a-week drop-in lab during the summer for students to check in with our business teacher or CTE program administrator, work on projects, and possibly even prototype or produce in the lab. Business doesn't take the summer off, making this out of school time incredibly valuable. No longer will we lose 3 months every year, only to work to reconnect every September. By maintaining a connection to Panther Tech over the summer, and providing students the opportunity to do the same with their own ventures, our program and partners will have a stronger, richer partnership, and students will seamlessly transition into the new school year.

D. Regional, Statewide, or System Changes: There is an entrepreneurship movement afoot nationally. Across the nation, over 500 colleges or universities have established programs in entrepreneurship and innovation (6). Yet this seems to have taken hold only at the postsecondary level. Comparatively, there are under 100 high schools in the United States teaching Design Thinking, and just 3 in Oregon(7). Our vision of a high school center for entrepreneurship and design will be the first of its kind in Central Oregon. It will be a model for pathways to business creation and higher education, and create the next generation of innovators in the state. It connects our students to post-secondary training at CEED, and provides connections to business and community resources through strong partnerships. The collaboration between manufacturing and entrepreneurship creates the foundation for a student-run enterprise, and an opportunity for work-based learning, further community outreach, and program sustainability.

The success of our previous revitalization provided the template, and many of the pieces necessary, for us to quickly build new partnerships and alignment agreements within entrepreneurship. With these solid partnerships in place, we have taken the next step to create a whole-program model: a scalable, collaborative system for a successful student-run enterprise, thereby adding long-term sustainability to CTE programs. We plan to share this model in much the same way we have with manufacturing: hosting tours and events, presentations at the Innovation Summit, OACTE, or our regional ACTE, even simple phone or email conversations. Our hope is to share the model and what we learn in the process, and together improve programs.