

**ADVANCING EDUCATION
INCOME AND HEALTH**

Thinker Tinker Trailer A Mobile Makerspace

“My name is Jaime, and I am a Junior at Monroe High School. I’ve lived in Monroe my whole life. My mother grew up in California and moved to Oregon to go to OSU, and my dad has moved around Oregon throughout his life. My brother and sister graduated from Monroe High School and so will I. After high school, I would like to attend a university and study English, eventually getting a degree in that subject and moving on to a career in editing. A lack of modern technology and funding for my high school has limited my opportunities to learn about the developing technological world. Insufficient funding has long been “the norm” at Monroe High School.

However, the introduction of the Thinker Tinker Trailer mobile makerspace program at our high school has been an amazing opportunity. We have been given the ability to learn about things such as 3D printers, T-shirt printing technology, laser cutters, and more. I decided to join this program because I was interested in learning about these things, because knowing this will be good for future jobs and possibly a career. Our world is becoming increasingly technologically based, and the Thinker Tinker Trailer gives us a chance to learn information that will be invaluable in our future. So far I have learned how to design 3D items in order to have them 3D printed.

I am soooo excited to learn more. This program is very exciting and fun for all the students involved.”

Jaime Miller, Junior
Monroe High School

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United Way of
Benton & Lincoln Counties

unitedwayblc.org





MOBILE EDUCATION. DATA-DRIVEN CURRICULUM. EXPERIENTIAL LEARNING.

Science, Technology, Engineering, Arts and Math (STEAM) and entrepreneurial-related concepts are increasingly important for 21st century education. Today's job market demands individuals with strong social, technical, and analytical skills. Unfortunately, many primary educational institutions can't keep up with rapidly-changing workforce needs without strong partners.

Kids need to be able to dream about their futures. Our goal is to provide a high-touch, hands-on program to youth from families or districts that lack the resources to offer this type of opportunity.

A STE(E)AM-POWERED PARTNERSHIP

Oregon ranks as one of the worst states in the nation in successfully preparing students for the future, with a high school graduation rate of only 73.8% in 2015. What's worse, only 66.4% of students from low-income families graduate, 10 points below the national average.

The Thinker Tinker Trailer aims to change that by providing curriculum and experiential learning to amplify classroom content. Because it's mobile, it can go where the need is. With light fabrication equipment, digital design programs, and a custom curriculum focused around entrepreneurship, the Thinker Tinker Trailer is built to increase student proficiencies in digital literacy, interpersonal skills and business acumen.

#itsbiggerthanatrailer

The Thinker Tinker Trailer helps break the cycle of intergenerational poverty, giving underrepresented youth a place to go beyond society's expectations. The goals are to get youth interested in STEAM and entrepreneurial disciplines but also in higher education itself, whatever that may look like for them.

Research from Education Northwest shows that rural Oregon youth are less likely to enroll in postsecondary education and less likely to continue to the second year of college than their urban and suburban peers. With Oregon's 40-40-20 education goals, this is a challenge that needs to be met.

HOW IT WORKS

Thinker Tinker Trailer curriculum is tailored to meet needs of each district, neighborhood, or school. It ostensibly allows students to tap their creativity and "make cool stuff," but also delivers experiential learning about business concepts and interpersonal skills. These skills are valuable no matter where students go after high school.

Curriculum can range from a makerspace workshop for a science fair or one day event, to a 10 week, module-based course.

STE(E)AM: Science, Technology, Engineering, (Entrepreneurism), Arts, Math

THINKER TINKER TRAILER

#itsbiggerthanatrailer

One day events could be creating a 3D object, a custom t-shirt, or a laser engraved object. Module-based courses have a two-hour session per week, focusing on college and career readiness skills.

Adapted from the lean business model canvas, students walk through the foundations of business, and learn how to run a micro-enterprise. The course culminates in a "Demo" day where students are able to sell the products they have created at a local event.

PILOT PROGRAM

The Thinker Tinker Trailer launched at Monroe High School in October 2016.

Monroe, Oregon was chosen as the pilot location in response to United Way of Benton & Lincoln Counties' 2013 Rural Needs Assessment, which identified providing activities and developing leadership opportunities for South Benton County youth as priorities.

The curriculum development team worked collaboratively with the high school to custom-design this 2x per week program.

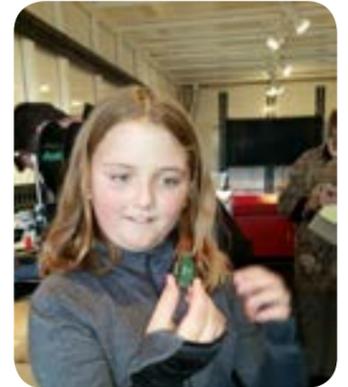
The pilot is being delivered by Oregon State College of Business students.



OUTCOMES

Short-term expectations:

1. A greater number of underrepresented youth developing critical thinking and problem-solving skills.
2. A greater number of underrepresented youth interested in pursuing STEAM / Entrepreneurial Business related activities and fields; and
3. A greater number of underrepresented youth interested in and driven to attend university or some sort of higher education.



Long-term expectation:

Greater numbers of underrepresented youth across Oregon will grow up, attend university and pursue a career in a high-demand field, and build a more financially stable family than the one in which they grew up.

DATA-TRACKING

- Number of communities engaged
- Number of youth interacted with
- Percentage of engaged youth who decide to pursue STEAM/Entrepreneurial Business related activities in high school and college
- Participants' success in high school, college, and future careers

STRATEGIC PARTNERS

Oregon Cascades West Council of Governments

The Oregon Cascades West Council of Governments (OCWCOG) serves Linn, Benton, Lincoln, and Lane counties in several ways. OCWCOG staffs and administers the Cascades West Economic Development District (CWEDD), bringing communities together to solve economic development challenges and find new opportunity. OCWCOG and CWEDD assist in breaking cycles of poverty, fund business to fuel expansion, and provide technical and staff assistance to emerging and established leaders--including young entrepreneurs. OCWCOG identifies clusters of opportunity and coordinates resources to build and strengthen the public and private sectors.



Oregon State University College of Business

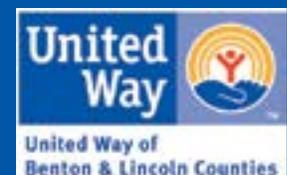
The College of Business (COB) takes creative, adventurous students and gives them the tools to succeed when they get their degrees. Students travel the world, start their own innovative businesses and learn there's a social return on everything they do, so when they head out into their communities, they are ready to make a positive impact.

16xOSU is a new social entrepreneurship initiative housed in COB's Austin Entrepreneur Program. It uses business models and methods to help solve social problems. Students participate in an entrepreneurial community, applying classroom knowledge to construct sustainable, innovative solutions to poverty, at home and abroad. 16xOSU students are challenged to analyze situations strategically, think critically, and work collaboratively to ensure the long-term sustainability of their solutions.



United Way of Benton & Lincoln Counties

United Way's mission is to increase the organized capacity of people to care for one another. As a mobilizer and a catalyst for community change, we are leaders in the business of caring. United Way believes we must act now to break the cycle of childhood poverty and provide opportunities for underserved youth in rural communities to achieve their potential through academic success, financial stability and healthy lives.



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