



Mid-Valley **STEM-CTE HUB**



2020-2021 Annual Report

FROM OUR EXECUTIVE DIRECTOR

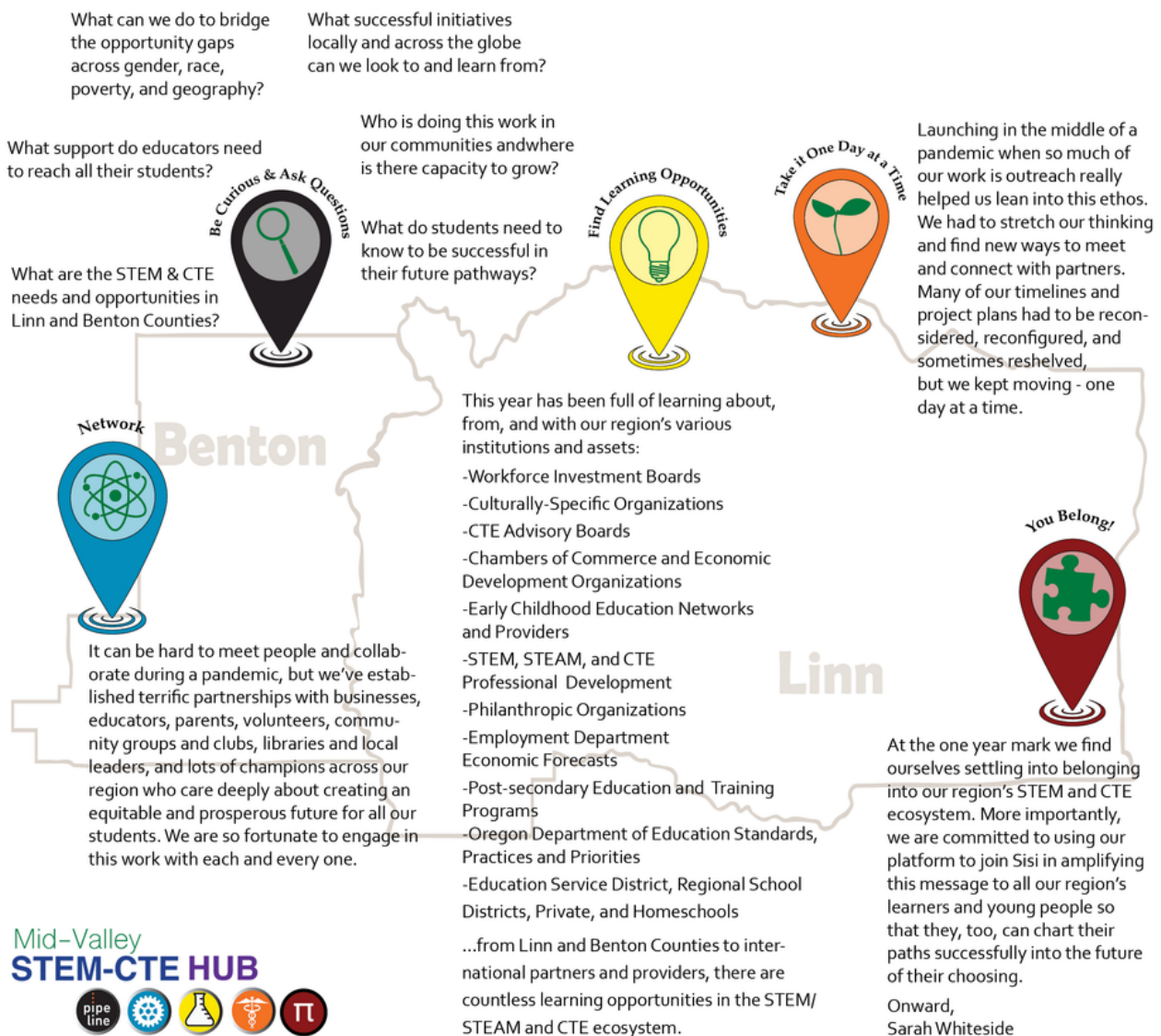
"Be curious, ask questions, network, and find learning opportunities.

Take it one day at a time and you will get there. And, most importantly, you belong."

-Sisi Virasak, LBCC Computer Systems Faculty

A Message from Mid-Valley STEM-CTE Hub Director, Sarah Whiteside

As I think about where we are today at the conclusion of our first year as the newest Hub to Oregon's network of 13 STEM Hubs, this quote from our friend and colleague, Sisi Virasak, Computer Systems Faculty at Linn-Benton Community College, sums it up perfectly. We may have only just launched as an organization last August, but Sisi's advice, while intended for her students, also works as a kind of roadmap for the path we at the Hub have taken this past year.



BY THE NUMBERS

Number of educators who participated in Hub PD or programs



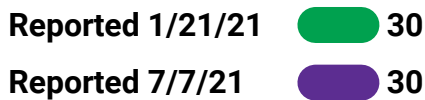
Number of educator hours spent in Hub PD and programs



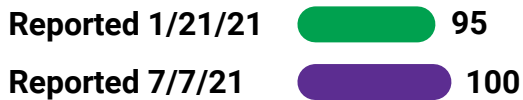
Projected number of students impacted by educator PD participation



Number of industry volunteers who participated in Hub activities



Number of industry volunteer hours



Number of students who participated in Hub-supported programs



Number of student hours in Hub-supported programs



Number of students (K-12) impacted by Hub-supported partner grants



COVID-19 RESPONSE: MICROGRANTS



The Mid-Valley STEM-CTE Hub's goal is to ensure that all students in our region have access to meaningful STEM and CTE experiences. We firmly believe that supporting great teaching is one of the best ways to achieve that goal.

There is ample evidence that COVID widened the already existing systemic education and inequality gaps. Our grant program aimed to work with teachers and community-based organizations to create inclusive plans to reduce barriers and support students.

The MVSCH microgrants funded equity-focused, STEM-CTE-related projects or initiatives, especially for those furthest from opportunity:

- **First-round: A total of \$78,019 was awarded to fund 35 projects.**
- **Second-round: A total of \$88,881 was awarded to fund 33 projects.**
- **Third-round: A total of \$90,592.98 was awarded to fund 40 projects.**



With the conclusion of our third and final round, we supported **108 projects with a total of \$257,492.98.**

These microgrants were made possible with funding and support from the Oregon Department of Education, the Ford Family Foundation, the Oregon Community Foundation, and the John and Ginger Niemeyer Foundation.

Learn more about our 2020-2021 grant program at www.midvalleystem.org/covid-19-response/.



CAREER-CONNECTED LEARNING



SPECIAL PROJECTS

MVSCH developed partnerships to expand career-connected learning opportunities for students in our region:

- Procured funding to provide a CTE career guidebook for distribution to over 3,000 area high school students;
- Coordinated partners to engage with Blake Manley and his **"Manley Jobs" video series** consisting of nine videos highlighting skilled jobs including concrete mixing, logging, and machining. This project has garnered national attention because of its unique approach to career-connected learning.



COMMUNITY & SCHOOL ENGAGEMENT

MVSCH participates regularly in work to highlight our region's unique industry and career and technical education resources and assets. These include:

- CTE Month (February);
- Manufacturing Day (1st Friday in October);
- Social Media promotions focused on local industry;
- CTE Signing Day partnership with LBCC;
- Development of www.mvcareerconnect.com website;
- **Trades Notebook** resource guide for school counselors and career centers.



JOB-ALIKE GROUPS

In partnership with the Linn-Benton-Lincoln Educational Service District, MVSCH organized Career & Technical Education (CTE) professional development and regional networking opportunities called "Job-Alikes." These groups:

- Consist of small cohorts of educators organized by CTE content area;
- Serve as a space to share ideas, resources, problem-solve, plan instruction, collaborate on extension ideas/field trips, and establish partnerships with local businesses and industries.
- Currently consists of Culinary & Health Occupations and will be expanding into other content areas starting Fall of 2021.

FREE SUMMER CAMPS AT LBCC



INVENTOR'S WORKSHOP WITH MAKEY MAKEY

Mid-Valley STEM-CTE Hub hosted a camp for middle school-aged students called Inventor's Workshop with Makey Makey. Our Program Coordinator, Chris Singer, a certified Makey Makey instructor, ran this four-day camp where students designed and created their own assistive technology devices, video game controllers, and musical instruments in this camp.

Learn more: www.midvalleystem.org/inventors-workshop-summer-camp-with-makey-makey/



DRONE DANCING WORKSHOP

Western Oregon University Dance Instructor, Darryl Thomas, taught students how to use coding and algorithms through the act of dancing. The goal of the class was to have the kids code drones and LED light vests to sync up with their choreographed dance moves. The curriculum of this camp featured technology and engineering lessons while utilizing design-thinking and project-based learning strategies.

Learn more: www.midvalleystem.org/drone-dancing-summer-camp-with-darryl-thomas/



DIY GUITAR MAKING WORKSHOP

MVSCH Makerspace Coordinator, Forrest Johnson, along with an associate, Niels Nielsen, taught students how to use basic hand tools to create an electric guitar made of scrap wood and an old license plate, along with a small solid-state amplifier. This camp supported a makerspace curriculum with design-thinking strategies while promoting the upcycling of discarded items.

Learn more: www.midvalleystem.org/guitar-making-workshop/

MORE SUCCESSES & IMPACTS



SPECIAL PROJECTS

- Our **Community Makerspaces** project provided funding support to assist the development of three makerspaces: (Albany Public Library, Boys & Girls Club of the Greater Santiam / Both the Lebanon & Sweet Home locations).
- The Hub recently launched its **Educator Lending Library**, which allows our region's educators to check out free STEM materials for use in their classrooms



COMMUNITY ENGAGEMENT

- Our "**Closing the Gap**" Project highlighted professional women and gender minorities from our region who are working in STEM & Trades fields.
- Coordinated a **Virtual STEM Week** (May 2021).
- Developed an **Asset Map** to show the various STEM & CTE assets in Linn and Benton counties.



APPLIED & PROJECT-BASED LEARNING

- The Hub provided funding support for the next 3 years of the Linn County Library Consortium's Take-It, Make-It program, which allows the libraries to distribute free STEM kits for the children in our region.
- The Hub provides professional development for educators to help provide more STEM/CTE opportunities for students in our region.



RESOURCE DEVELOPMENT

- The Hub continues to work to build its capacity by growing our team (hiring a Marketing Specialist, Accounts Payable, STEM Librarian & Makerspace Coordinator, and Grants, Assessment & Outreach Manager;
- Building an infrastructure for accepting donations;
- Cultivating additional support via grants, partnerships, and sponsors for sustained impact in the region.

TESTIMONIALS

"Through our partnership with Mid-Valley STEM_CTE Hub, we were able to reach new students and audiences that we previously had been missing. Our project, Manley Jobs, has been recognized on a national level at this point. Thanks to the hub for all the assistance and grant opportunities they provided, so we could take a small idea to the next level."

**Blake Manley, Teacher at
Sweet Home High School**

"Through our partnership with Mid-Valley STEM-CTE Hub, we brought together invention educators, drone and coding educators, curriculum developers, computer scientists, and professional dancers to create, pilot, and refine a STEAM integrated pedagogical model of invention education with culturally responsive practices that engage youth in artistic performances requiring them to learn about and use invention practices in the context of technologies controlled by coding."

**Darryl Thomas, Founder
Code Can Dance**

"With funds from the Micro-grants made available by the Mid-Valley STEM-CTE Hub, Greater Albany Public Schools middle school and high school science teachers were able to enhance distance-learning and hybrid instruction during the 2020-21 school year. Seventh and eighth-grade students received individual kits to engage in an engineering design activity. High School science teachers were able to provide quality inquiry and lab-based activities through the use of Pivot Interactives. The Mid-Valley STEM-CTE Hub continues to support our district's teachers by providing Job-Alike learning opportunities and offering materials for teacher-checkout to provide enriching STEM experiences."

**Cindy Drouhard, K-12 Science
Program Assistant
Greater Albany Public Schools**

"The Lebanon Public Library's partnership with the Hub has been incredibly beneficial. For library employees, it has strengthened our collaboration with youth services staff at neighboring Albany Public Library. Our two libraries share monthly STEM kits (funded by the Hub) that have been extremely popular with our young patrons. The kits have helped us stay engaged during the pandemic while we're unable to offer in-person programming. The kits also provide stimulating, hands-on activities that educate and entertain children while providing a break from excessive screen time due to online schooling. The Hub awarded our library grant funds that allowed us to create an entire STEAM collection (over 50 items) for our Library of Things. The Hub's website and social media are great places to find inspiration and fun experiments. We're grateful to the Hub and appreciate the work they do in helping us promote the importance of STEM education to our patrons."

**Kendra Antila, Director
Lebanon Public Library**

"The Hub has worked with Seven Oak Middle School to provide students with more opportunities surrounding college and careers that they otherwise would not be provided. With the help of the Hub, teachers at SOK have organized career days for our 650 student population. All students are able to meet with professionals from across the Willamette Valley and beyond. Students have reflected that it's been incredible to hear the variety in jobs and understanding that not all jobs require a traditional four-year degree, which is intimidating to some of our population at SOK."

**Chelsea Heater, Teacher
Seven Oak Middle School**

"We started a brand new alternative school last year. Our funding was extremely limited. But with a microgrant from the Hub, I was able to get a top-notch 3D printer as the cornerstone of our budding STEM program and maker space. Even with our small student body, dozens have started learning 3D modeling and bring their designs to life with 3D printing."

**Robert Zarfes, Teacher
Philomath Academy**

CONNECT WITH US

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<https://bit.ly/3kAyn18>



<https://bit.ly/3u9pK0t>

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We look forward to connecting!

Mid-Valley
STEM-CTE HUB

