STEM PATHWAYS
WORK-BASED LEARNING IN RURAL VERMONT

This project, funded by the J. Warren and Lois McClure Foundation, addresses gaps in access to meaningful expanded learning and work-based learning opportunities in rural Vermont by training high school students to deliver STEM content to younger students in afterschool and summer learning programs.

PROJECT GOALS:

- Training high school students in rural areas to deliver content around science, technology, engineering, and mathematics (STEM) to their local afterschool and summer learning programs.

- Supporting teens in the work-based learning process by helping them to develop job skills, improve their instructional practices, and connecting them to different career paths.

- Providing jobs for high school students who will receive compensation for their time and are located in areas of the state where finding part-time work can be challenging for youth.

- Increasing access to STEM programs during the out-of-school time for elementary school children.

Vermont Afterschool
Partnerships, Advocacy, Training, and Resources for Excellence in Afterschool

The J. Warren & Lois McClure Foundation
Promoting access to postsecondary and career education for Vermonters
The Students, STEM, and Staffing Project addresses gaps in access to meaningful expanded learning and work-based learning opportunities in rural Vermont by training high school students to deliver STEM content to younger students in afterschool and summer learning programs. The following photos and stories are just a few examples of what was gained in the first year of this project. Thank you to the J. Warren & Lois McClure Foundation, the Vermont Agency of Education, and the Noyce Foundation for their generous support of this project.

**GAINING CONFIDENCE**

One student began the program very shy and with apparent low self-esteem. She started the program with spotty communication and was often late with paperwork. During her time in the program, she has grown to be seen being a positive role model to the younger students, developed a perfect attendance record, and is often now requested by adult staff members to assist in their classes. Staff are excited to see that the younger students respond positively to her, and one staff member who conducted a formal observation of this teen working commented that this student was turning out to be a “natural teacher.”

*To protect the privacy of students, the students portrayed in the stories are not the ones shown in the photos.*
MAKING CONNECTIONS

One of the teens was a new student to the high school and it is also her senior year. She’d moved to Vermont after living in Puerto Rico and Chicopee, MA, and did not know any of the other students involved in the project nor was she very active in the school community. At her prior school, the student had experience in working with youth in an afterschool setting which allowed her to naturally step in as a leader/mentor for the other teens during our meetings. Not only has she been able to make new friends, but she was able to implement her prior experience and apply it to our work setting which increased her confidence as a student and leader.

BUILDING SKILLS

Staff in another program were concerned that a particular student was not a strong enough candidate for the program. However, since completing training, that student has repeatedly been called out for an ability to build strong relationships with the younger students. Staff report that this student now appears eager to help other teachers and always has a positive attitude while working.

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SHARING A PASSION

One student joined our STEM team because she already loves math and dreams about becoming an astronomer. "I think in equations," she says. This project absolutely sparked her talents as a teacher and a leader. She quickly discovered where to modify the instructions in order to match the developmental levels of the kids. (We had some younger kids sign up for the program by special request because they love rockets!) When her teaching partner was sick, she confidently finished out the remainder of the program on her own. As one of her adult mentors, I could not be more proud of how she rose to the occasion and used her scientific problem-solving powers to hold the course despite the kids often wanting to veer off in other directions. She reinforced key STEM concepts all along the way and created a fun atmosphere so that the same kids wanted to come back for more.

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FINDING A CAREER

Some of the deep and meaningful outcomes of a project like this aren’t always measurable by data, but by internal reflection and personal growth. One of our teens, a high school senior, encapsulates the potential of this STEM Pathways Project. I’ve known this student since she was in middle school - she’s always been a shy, reserved young girl who lacked confidence in herself; the kind of student who was almost easy to miss in a daily count because she was SOOO quiet. I was pleasantly surprised when she signed up for this project.

During my initial meeting fall meeting with the teens, we talked about our goals and hopes for the future beyond high school and how this experience could support their plans. At the time, this student shared that she was not going to college and wanted to take a year off. She was not interested in "going through the application process" and wanted a "break" and get a job in town. However, a slow change started to occur during her time working with kids - a different young woman started to emerge, a version that perhaps always inside of her, but she never believed in until now.

She’s more self-assured, poised and carries herself with her head a bit higher. The moment worth capturing is when she told me during our last meeting last month that she’s considering taking CCV classes because she "really likes working with kids" and that it made her "feel like she's making a difference." She was able to come to that "aha" moment all on her own by experiencing how capable she is and the relationships she was able to form with the students. The young woman who was so unsure of herself and didn’t think she could accomplish anything after high school is now planning to further her education because she’s found something that’s given her purpose and a mission for her future.

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