



Think Make Create

LABS

The Makerspace Playbook

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TMC SUPPORTERS: MICRON

The Micron Foundation has expanded global support for STEM education by sponsoring a new project in Taiwan modeled on Idaho's Think Make Create (TMC) Mobile Makerspace Labs. Late in 2020, Laurie Anderson, of the Micron Foundation, helped the Idaho Out-of-School Network (ION) create the partnership for this ambitious new STEM program. Ms. Anderson facilitated a gift from the Micron Foundation to the Idaho STEM Action Center (Idaho STEM AC) for \$30,000 to support the first TMC labs in Idaho and STEM activities for 1,000 Caldwell, Idaho youth. Those partnerships led to a global collaboration with a much bigger impact.

The first mobile makerspace labs for STEM education were piloted several years ago by an organization called Beyond School Bells (BSB) in Nebraska. In early 2021, Ms. Anderson wanted to understand what to expect in Idaho and began researching the Nebraska program. She discovered that BSB had contacts in Taiwan and knew about the need for rural outreach and STEM education in Asia. They put together a plan to fund one or more TMC Labs in Taiwan by Spring 2022.

Cathy Ammirati, also of the Micron Foundation, states: "Micron's Taiwan STEM Outreach team had been seeking an opportunity to reach rural students. TMC's success with afterschool programming in the US made it a great partner for Micron's international team."

Because of Micron's leadership and collaboration with the Idaho STEM AC, youth across the world will have greater access to STEM careers in the future. Ammirati said, "There are opportunities in the big districts, and we want to reach out to include all youth across the state to develop STEM skills and interests."

-Anna Almerico, Idaho Out-of-School Network, Program Director



Northshore STEM VISTA Jessica Deville, Region 9 LaSTEM Center Director Wendy Conarro, and Region 3 LaSTEM Center Director Christie Landry in front of the Brain Food Truck before delivering to Lafourche Parish schools.

Spotlight on You: Brain Food Truck Supports Hurricane Ida Disaster Relief

Hurricane Ida made landfall as a category 4 storm in southeast Louisiana on August 29, 2021. Many schools in Ida's path were severely damaged and remained closed for several weeks as a result, especially those in the southernmost regions of the state, like Lafourche parish. Northshore STEM's TMC mobile lab the [Brain Food Truck](#), which is based out of Tangipahoa parish, provided STEM education activities and supplies for two elementary schools in Lafourche parish in the wake of Hurricane Ida to aid learning loss recovery for students in this disrupted school year.

The multi-parish collaboration is a testament to both the physical reach that the TMC mobile lab model allows organizations to achieve, and the collaboration facilitated by the recently created Louisiana Regional STEM (LaSTEM) Network centers. ([More about the Regional LaSTEM Network centers](#)). Regional LaSTEM Center Directors are encouraged to share information, collaborate, and interconnect through coordination of resources. In the wake of Hurricane Ida, Region 9 LaSTEM Center Director and Northshore STEM leader Wendy Conarro was quick to offer aid to her counterparts in the hardest hit parts of the state via the Brain Food Truck's hands-on, minds-on STEM activities. Region 3 LaSTEM Center Director Christie Landry saw the opportunity to support her region's STEM education needs and answered the call.

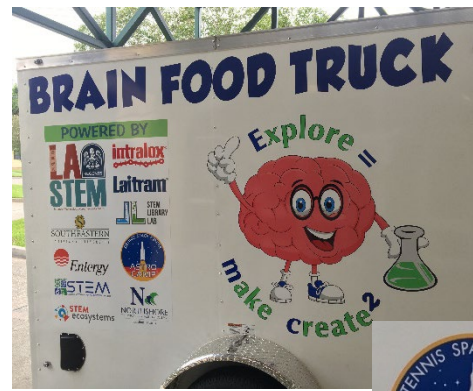
The collaborative efforts of these two STEM education leaders created a unique opportunity to recoup STEM learning losses in a way that allowed students in need to use their creativity, be hands-on, and have fun while learning – things that, while not necessarily conventional disaster relief, certainly helped get things one step closer to normal for Lafourche parish students in the aftermath of Hurricane Ida.

-Jessica Deville, Northshore STEM Communications AmeriCorps VISTA

Give It A Try: NASA ASTRO CAMP

Collaborative Partner Program

Looking for new, exciting, quality STEM activities to add into your TMC lab? Consider becoming a NASA ASTRO CAMP Collaborative Partner and take advantage of the most current NASA resources providing a connection for all youth to NASA Science Missions and Challenges! Northshore STEM's TMC Lab the [Brain Food Truck](#) became an official NASA ACCP in 2021. Thanks to this partnership, the Brain Food Truck expanded its menu, adding high quality and engaging STEM activities that were developed and vetted by NASA. For more information and to become an official NASA ACCP in your community, visit nasa.gov/centers/stennis/education/students/astrocamp.html



-Jessica Deville, Northshore STEM Communications AmeriCorps VISTA

Put it Into Practice - Giving Youth Control

Research has shown when youth feel in control of their learning they are more engaged, enjoy learning and learn important skills such as self-determination, goal setting, and decision making. Ask yourself what giving youth control might look like in your program. We can't give youth a task they've never seen and expect them to know what is needed to succeed but we can guide them in the right direction. So, what does this look like?

1. Consider youth interests and identities in planning experiences. We all know we learn better when we are interested in the topic - find what they are interested in to explore.
2. Ask youth for their input on program design and implementation. Use their feedback in purposeful ways.
3. Encourage all youth to explore and express their interests during activities. Perhaps a youth has a talent to share - give the tools and proper support to help them succeed in share this talent with others.

There might be points where you feel like you should be doing more but remember, you are the guiding light for their learning. You are guiding them in their individual discovery and learning.

-Julie Boyle - Nebraska Extension and Beyond School Bells

Tips and Tricks for Giving Youth Control

Giving youth control is a great way to get youth invested in their learning. With you by their side guiding them along, youth in your program can take on several leadership roles. Here are a few ideas:

1. If you have a program advisory board include 1-2 youth members.
2. If a young person has a skill they want to share, help them facilitate a club or activity to teach that skill.
3. Have youth pick clubs or themes for the month/quarter/semester.
4. Work with youth to plan a parent night where they can showcase everything they are doing in the program.

-Julie Boyle - Nebraska Extension and Beyond School Bells

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IDAHO Think Make Create Labs

Rewards a Plenty



Providing programming to area schools and a homeless shelter to children over winter breaks has been an energizing and valuable experience for those of us with access to the Pilot trailer, Lab #001. There is not much better than being met by children absolutely overjoyed to see you and who want participate in the activities you've planned for them because the remember seeing you before. We found that having a plan while being flexible was key to our success over the past few weeks. In addition, encouraging the children to think about how to overcome design challenges by asking them questions to lead them in the right direction was very successful. This not only allowed the children to take ownership of their creations, but it also helped them develop their own process to solve future challenges. Those children who struggled most repeatedly were the most proud of what they made. Keeping the group on task and asking for help from other children was also extremely valuable for our experiences this winter.

Crystal Ivie, AmeriCorps Instructor, Idaho Out-of-School Network

Need Money or Supplies? No Problem!

Due to fantastic data coming back from user reports and shared TMC stories, the TMC leadership team was able to use that information to gather financial support to assist our TMC hosts - we have money! The funds come from a variety of channels, so in order for lab hosts to access them they must first - submit a [user report](#) and second - submit a [mini grant application](#).

Funding opportunities could include:

- ✓ Program materials/supplies
- ✓ New tools/expanding current activities
- ✓ Supporting TMC STEM nights with schools
- ✓ Staffing
- ✓ Operation funds
- ✓ Trainings

Some funds have an expiration date, therefore you may see an email or receive a phone call without having yet submitted a grant application.

Do not worry - we are here to help you be successful and will try to minimize any additional workload.

If there is something you need, please fill out a grant application or email dlopez@uidaho.edu. Daniela will help connect you to those additional resources and funds.



PROFESSIONAL DEVELOPMENT

Let us help your team stay fresh when delivering quality TMC programming! We provide in-person and/or hybrid trainings for:

- Staff new to TMC programming
- How to teach hands-on, makerspace STEM education
- Building TMC community partnerships (especially with schools)
- Evaluating TMC program impact (beginning Mar/Apr 2022)
- Other ideas?!?

We are also currently building 1 to 2 hour on-demand modules to help introduce Think Make Create Labs to newer and seasonal staff.

TMC Labs can be incorporated into programming that is already happening. These professional development opportunities will help you streamline that process and support you in delivering quality STEM education. To schedule a training or talk about how we can meet your teams needs, contact Crystal Ivie, civie@uidaho.edu or a manager below.

Idaho TMC Lab Team Managers