



LABS

The Makerspace Playbook

Issue #17: February 2023

SPONSOR SPOTLIGHT

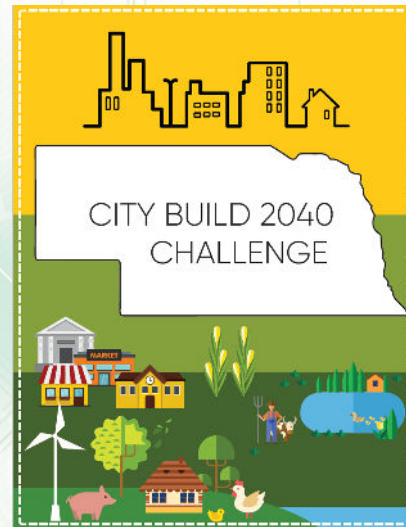
It is remarkable that in just two years, 25 Think Make Create mobile labs have provided hands-on STEM education to over 20,000 rural and underserved communities in Idaho. Even more remarkable is that Optum Health – an international company that has served over 100 million patients worldwide – saw the potential for this program as a behavioral health intervention and stepped up to make it happen.

Optum joined the TMC team in 2021 as an inaugural “lead sponsor” through the Idaho STEM Action Center’s private public partnership program. Optum was interested in the intersection between inquiry-based education and positive youth outcomes that could be explored by Medicaid service providers. Over two years, Optum provided \$120,000 to the program, and when matched by the STEM Action Center this allowed the Idaho Out-of-School Network to build and support six TMC Labs with training and technical support.

TMC Labs with the Optum logo have been seen by approximately 15,000 people across rural Idaho associated with more than 360 educational sessions and public events. Optum Idaho TMC labs have been used directly by 4,857 youth from across the state and continue to be used nearly every week of the year.

Thank you to Optum.

~ Wendy Wilson, Idaho Afterschool Network



Spotlight on TMC Challenge Month

Science, technology, engineering, math, oh my! STEM is a fundamental part of our Think, Make, Create Labs. As we have seen tremendous growth over the last several years we want to bring a sense of community to our fleet. New for March 2023, we are introducing TMC Challenge Month. This year we are going to focus on the E in STEM, engineering. Our challenge this year we will be using the 2040 CityBuild program from Beyond School Bells. CityBuild is a hands-on, minds-on experience for k-8 youth to use recycled and TMC Lab materials to build a representation of their town as they envision it will look in 2040, a time when they may be the next generation of community leaders. There are three different options this year – 2 day build, 4 hour build, and 2 hour build. To learn more and check out each option visit our TMC Lab Community website: <https://go.unl.edu/tmcchallenge>

~ Julie Boyle, Nebraska Extension

Give It A Try

Humpty Dumpty sat on a wall... We all know how this ends, Humpty can't be put back together again! What if we could engineering something that would prevent Humpty Dumpty from breaking after falling off the wall? In this activity, students use the engineering design process to design and build a package that will keep an egg from breaking. Check it out on the Click2Engineering website: <https://click2engineering.org/learning-activities/activity/egg-drop-activity/>

~Julie Boyle, Nebraska Extension



EGG DROP EXPERIMENT can you keep an egg from breaking?



Put it Into Practice

Tinkering is a great way to help youth learn how to persist and learn from failure – one of the 10 practices for developing an engineering mindset on Click2Engineering. Time to explore and tinker can provide youth with positive experiences with failing and help develop an engineering mindset. Encourage your tinkerers to take time, to explore and be creative, and most of all, to persevere through challenges to create something they are proud of. To learning more about persisting and learning from failure and developing an engineering mindset visit: click2engineering.org.

~Saundra Frerichs, Nebraska Extension, Click2Engineering, Click2SciencePD



Tips and Tricks

Tinkering is a lot like play. In my kindergarten, there was an art area with paints, glue and paper. The block area had cars and big wooden blocks. The house area had new costumes and props each month. The Exploratorium's [Tinkering Studio](#) has ideas and projects for creating space to play, tinker, and be creative with supplies from your TMC.

Begin with instructions to create something quickly and simply – to help youth get familiar and interested in the materials. Then give them time and resources to modify the project with their own creative ideas. Just like in my kindergarten, you can rotate the supplies for your tinkering studio every week or two, so students get to explore different projects like [Building with Slots](#) or creating with [Paper Circuits](#).

~Saundra Frerichs, Nebraska Extension, Click2Engineering, Click2SciencePD

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