



Think Make Create

LABS

# The Makerspace Playbook

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## TMC ON THE MOVE: SUMMER ORGANIZATION TIPS

Before summer starts, inventory and organize your lab. This is a great way to get comfortable with your lab and will make finding supplies easy. Create a form or dedicate a notebook where you write down the materials you used.

It's very easy to forget which materials you used if you don't write it down right away, so make sure you do it at the end of each day or activity. Program leads can then use the forms/notebook to order and restock supplies.

Create a labeled "reshelve" box for your lab that serves the same function as a reshelve cart at the library. If you're too busy to put supplies back in their assigned location, or if you don't know where they go, put the supplies in the reshelve box. You can put these things back in their correct location (or figure out where they go) when you have more time. This will avoid clutter, mixed-up storage bins and replacing items that were simply misplaced.

~ Amy Post, Idaho Out-of-School Network, TMC Labs Coordinator



## Spotlight on You: TMC On the Go!

Have you heard about the Think Make Create On the Go! Kits? We like to call it, "A classroom in a box!" These educational kits developed by the University of Idaho 4-H Extension are designed to include everything you need to facilitate quality STEM learning for a group of youth in any location. Lesson plans, materials for 30 students, handouts, STEM literature related to careers, and youth evaluations. The TMC On the Go! Kits are specifically designed for out-of-school time learning in Idaho for grades 3-5 with an emphasis on STEM lessons and activities that are not already in the Think Make Create Live Binder or trailer materials. We have gotten such amazing feedback from those who have used the TMC On the Go! Kits for spring programming.

Our folks at the Benewah County Extension 4-H Office have already gotten their hands on the Seeds to Bees TMC On the Go! kit. There are four hands-on lessons in this kit for students to learn all about plants and pollinators through experiential learning and literature. Students create seed balls as they learn about the plant life cycle, make desktop greenhouses and carry out an investigation as they explore photosynthesis, learn the parts of the flower and explore the principles of pollination, and create mason bee nesting habitats. Here is what Polly Grasham, a 4-H Youth Development Instructor, had to say:

*"Thank you! We held the Seeds to Bees camp yesterday and had the best day! There wasn't a single project we didn't love. We'll get those surveys back to you in the next few days and are anxiously awaiting the Forensics TMC On the Go! Sending you a photo from the Flower Power activity."*

We appreciate the feedback and the work you have all done and continue to do for the youth in your communities!

~Lillie Carnell, 4-H Program Coordinator, University of Idaho Extension 4-H

# Give It A Try: Wildfire Education

Adult supervision is required for this one, because you'll be playing with fire! Danielle Marquette of Boise State University developed a wildfire curriculum for her Master's thesis that has been a big hit among 4<sup>th</sup> graders in Idaho. The unit teaches about wildfire in Idaho's forests, grasslands and communities, and how climate change influences the way these fires burn. The lessons contain hands-on, inquiry-based demonstrations that could be used at any grade level in any location, with minimal supplies.

To demonstrate the fire triangle, all you need are a match, a jar, and a little bit of Playdough. You can compare fuels and learn how moisture influences their flammability. The matchstick forest demonstration allows you to vary the density of "trees" and slope of the ground to observe how fire spreads under different conditions. The erosion demonstration illustrates how organic matter helps filter rainwater, using just a couple bottles, some water, dirt, and leaves.



This curriculum is available online for free at <https://sites.google.com/boisestate.edu/wildfire-unit/home>. Contact Danielle at [danielleayarra@u.boisestate.edu](mailto:danielleayarra@u.boisestate.edu) for more information.

~ Amy Post, Idaho Out-of-School Network, TMC Labs Coordinator

## Put it Into Practice: 'Grab and Go' Kits

As the end of the school year approaches and we head into summer programming, we want to think about what will make your job as facilitators easiest. What do our educators need to continue to provide quality learning outside of the classroom? After traveling around the state of Idaho to meet all the wonderful informal and formal educators we have in our communities to share our resources, like the TMC On the Go! Kits, there was a consistent message I received from each group: educational kits or "grab and go" activities are in high demand! The response of the TMC On the Go! Kits from our educators has been: "These kits are awesome!", "This is going to be huge for our rural program" and, "We need more of these 'grab and go' kits". We hear you! These pre-planned lessons and materials in a box provide the convenience and efficiency that all educators need to prepare for the busy spring and summer months. They make learning fast, easy, and more effective. Not only is there an increase in the options for purchasing learning kits, there are also ways to create your own kits or have a checkout system with lesson totes. A great option to create your own 'grab and go' kits is to gather materials, handouts, and books into a tote to bring the lessons anywhere the youth are!

For more resources on STEM educational kits, visit [stemfinitly.com](http://stemfinitly.com), [shop4-h.org](http://shop4-h.org), or even customize a kit on Amazon. To learn more about the TMC On the Go! Kits, reach out to [ljcarnell@uidaho.edu](mailto:ljcarnell@uidaho.edu).

~Lillie Carnell, 4-H Program Coordinator, University of Idaho Extension 4-H

## Tips and Tricks – Summer Sun Safety

The benefits of a mobile maker lab is being able to set up a making experience pretty much anywhere, even outdoors. When creating an outdoor experience consider:

- Sunburns - apply sunscreen 15-30 minutes before going outside.
- Heat Exhaustion -
  - When possible avoid sun exposure between 10 a.m. and 2 p.m. when UV rays are the strongest.
  - Set up your maker space in shade when possible.
- Dehydration - have plenty of water on hand.
- Shoes - encourage youth to wear closed toe shoes/shoes with backs.

~ Christine Wood, SDSU Extension SD 4-H STEM Field Specialist

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