



Think Make Create

LABS

# The Makerspace Playbook

Issue #14: October 2022

## TMC ON THE MOVE: COMMUNITY EVENTS

Community engagement should be another piece of Think Make Create Labs programming. It is a chance to highlight your organization and all the wonderful things you do within your community, showcase any donors or sponsors, and bring awareness to the variety of educational opportunities to citizens in your area. Planning activities for these events should be slightly different.

- Choose an activity that can be adapted to a wide-range of audiences.
- Consider how much time you have or the time people will spend at your table, plan for around 15 minutes.
- Selecting activities that allow people to come and go at different phases of the build/design work best. If they can't pick it up on their own or you spend so much time walking them through steps, they won't stop for you.
- Know what resources you will have available at your set-up site, otherwise, plan to work "off the grid".

Make sure to engage other community partners, pick a theme, and be prepared for a day of reaching new audiences!

~ Claire Sponseller, University of Idaho 4-H



## Spotlight on You: Chamberlain PAWS

During the SDAN summer visit to the Chamberlain PAWS program in central South Dakota we were met with incredible energy from the kids and staff. Program Director, Lindsay Chilson, has built a wonderful program and you can feel it as you interact with everyone involved. Though it was a muggy July morning, you wouldn't have known it from the smile on the kids' faces and the curiosity they brought to our STEM explorations. Using electric motors and basic circuitry, we were able to create mini robots that could use markers to create unique "robo art". This upper elementary group was particularly impressive as their grit and perseverance was needed to troubleshoot issues as they moved along. That grit fits into the growth mindset we try to foster with each STEM project we tackle. Our younger crew worked with Squishy Circuits as they used conductive dough to light up their Play Doh creations. This group had such imagination and ingenuity as they chose and built their original designs. The teamwork on display was equally impressive as the kids were inclusive and respectful of others' ideas.

On site for this visit was our SDAN videographer, and the interviews conducted with students afterwards was one of the most rewarding experiences for our team. As the kids explained the challenges they faced as they completed their projects, we could see the way that the activities in our TMC trailers impact their thinking. STEM projects are often difficult, and for many educators that can be a barrier for implementation. However, the kids in Chamberlain proved to us that it's not important that their teachers are experts, but instead that they are willing to try and fail with their students. The value of working through challenges alongside your students is what truly fosters a growth mindset, and that growth mindset empowers students to tackle challenges in all areas of their lives. We are grateful to the Chamberlain community and the PAWS program for sharing their space for the morning and hope that all STEM facilitators can glean something from this experience.

~Jeff Sebern, Director of Programs - South Dakota Afterschool Network



# Give It A Try: Straw Rockets

Straw Rockets are probably not a new activity, but perhaps this version of it will be something new for you and your kids to try. Visit Pitsco and look at [Straw Rockets](#). They include launchers that are fun for a wide variety of ages, while providing versatility for more in-depth STEM learning adaptable for any youth audience. Fun for ages 2 to 99, straw rockets are a great activity that draw in participants of all ages at community events. They work indoors as well as outdoors (best without wind or rain/snow) and can be adapted for a 15-minute session or a more in-depth 2-hour session. Purchase a straw rocket launcher once and you can recreate hours of fun. You do not have to order modeling clay and cardstock/index cards through them, but we do recommend you use their straws. Pitsco includes free/downloadable curriculum for this activity.



~ Claire Sponseller, Area Extension Educator, University of Idaho Extension 4-H

## Put it Into Practice - Creating Sparks

While most literature discussing the impacts of youth STEM engagement focuses on long term programs, let's not forget the potential impacts that can arise from short-term exploration of STEM topics during an event. Activities such as science festivals and community engagement nights are a great way to positively influence multi-generational audiences' attitudes and interest in STEM.

The world of STEM is quite expansive. By creating opportunities like STEM nights, it is possible to expose youth to several different STEM topics in a short amount of time. This exposure has the potential to create a spark of curiosity and excitement.

When family and community is invited to learn along side youth, it develops a STEM ecosystem that can create opportunities for youth. When community clubs, afterschool programs, and family members foster the sparks by providing opportunities (wood) and positive youth mentors (oxygen) the sparks can grow into passion (fire) and youth become fully engaged in learning. If the ecosystems is continually fostered, youth will experience personal growth (heat) and eventually contribute back to their community (power).

For more some best practices for creating exhibits at these types of events: <https://ucanr.edu/sites/YDResources/files/365991.pdf>

For resources to aid your community and families in fostering those sparks beyond the event check these resources out:

- Families Learning at Home: <https://sdsfec.org/summer-digests-2020/>
- Developing Community Connections: [https://drive.google.com/file/d/1mFERC90tPFL\\_aMAa-JsXUmnOnCxySx0-/view](https://drive.google.com/file/d/1mFERC90tPFL_aMAa-JsXUmnOnCxySx0-/view)

~ Christne Wood - 4-H STEM Field Specialist, SDSU Extension

## Public Outcomes Visual

### PARTS

1-SPARK



2-WOOD



3-FIRE



4-OXYGEN



5-HEAT



6-POWER



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