

Building Idaho Makers A Statewide Approach

Handheld Librarian 9



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Idaho Commission for Libraries

libraries.idaho.gov/make-it-at-the-library



Why Library Makerspaces?



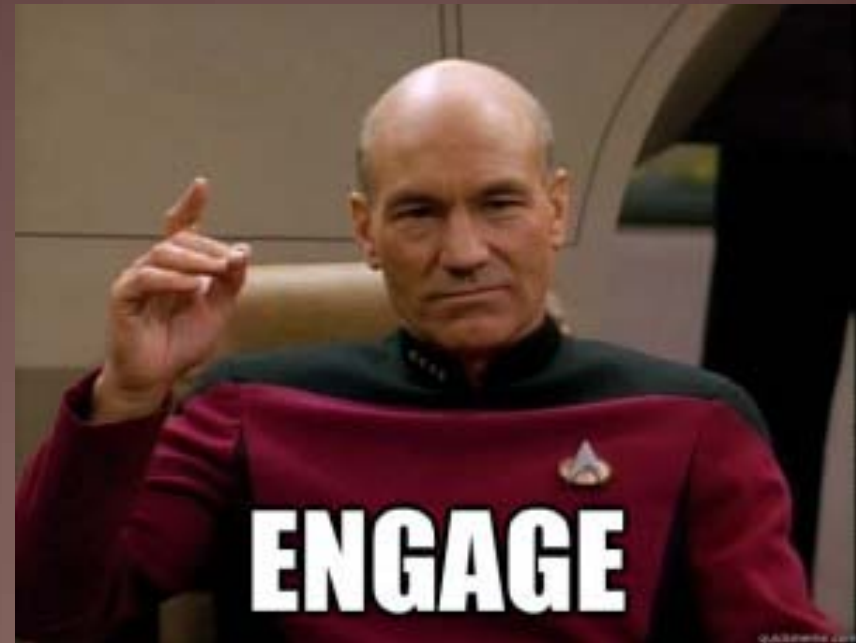
POLL – Multiple Choice

How familiar are you with the Maker Movement, makerspaces, and making?

- Very familiar – we have one or are doing making!
- Somewhat familiar – we have dabbled in making
- Not very familiar – I am unclear on the concept
- Not at all familiar – I have no idea what you are talking about!

Building Interest

Early Engagement
+ Sustained Opportunities
= Success in STEAM fields



Provide opportunities to immerse in a hands-on, inquiry-based environment.

Make It at the Library



A Dual Approach

A Statewide Approach Builds:

- A network of mentors to support growth & expansion
- A cohesive understanding of maker philosophy & culture
- Partnerships for leveraging buying power & support
- Recognizable and consistent branding



Local Level Approach:

- Encourages independence in meeting their community's needs
- Provides real-world feedback to guide overall project
- Shares best practices with a wider audience

Program Elements



A hand-drawn equation $1+1+1=3$ on a chalkboard. A hand is visible at the bottom right, holding a piece of chalk and pointing at the number 3.

Training
Collaboration
On-Going Support

Kits & Materials
Evaluation Tools
Social Media Outlets

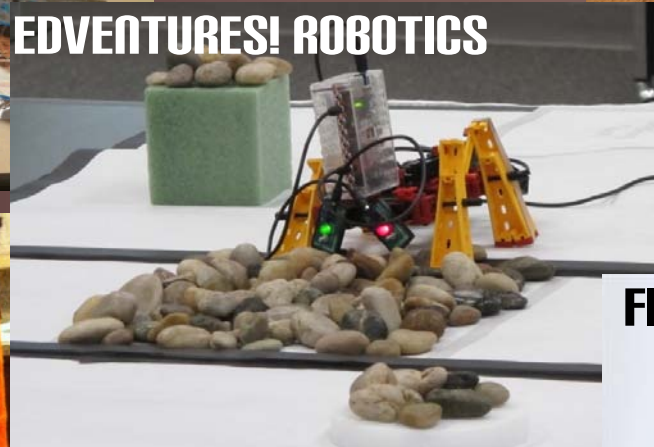


Idaho Making...Start with Teens

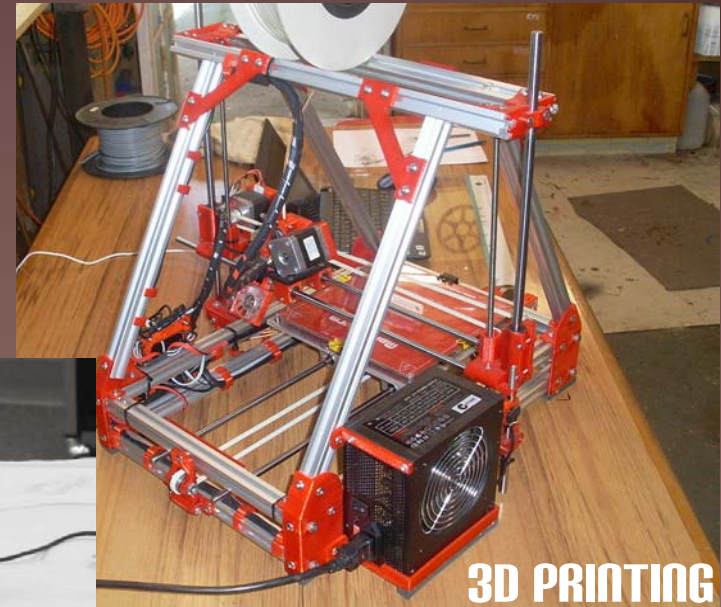
ELECTRONICS KITS



EDVENTURES! ROBOTICS



E-TEXTILES



3D PRINTING

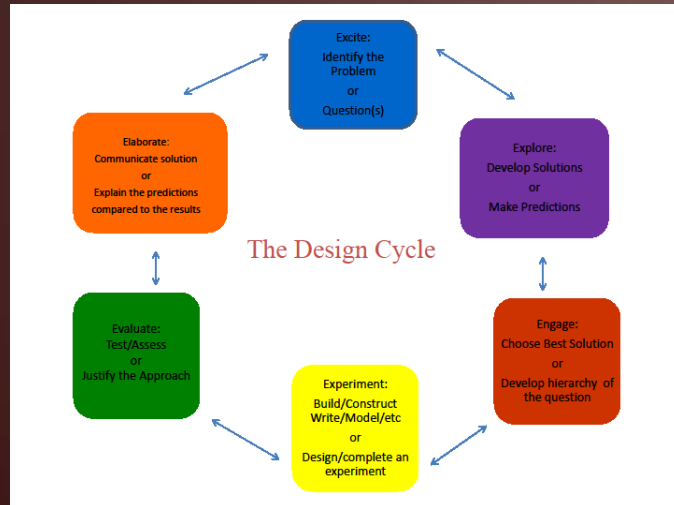
FISCHERTECHNIK®



Training is KEY!



- Foundational work
- Hands-on with real tools
- Responsive to needs
- Relevant to outcomes



And Builds Support



Formal Programs



**Bridge Challenge
Taught Structural Engineering
& Critical Thinking**



**Zhu-Zhu Pet Battles
Involved Problem Solving**

**LEGO® Pinball
Machines Use Levers**



**Fischertechnik® Carnival Ride
Explores Force & Gravity**



Not Just Technology!

Meet the Sheep!



All about shearing



Washing wool



Final product!



Re-Cycle and Re-Use!

Boat Race Challenge =

Problem-Solving, Innovation, & Creativity



More Ideas...



Get started faster through organization



Generate interest through displays



All ages love to MAKE!



Seek out mentors and community partners

Think outside the box!



Respond to Community Needs



Star Wars Cardboard Challenge
for the Whole Family!



Young Makers in
N. Idaho

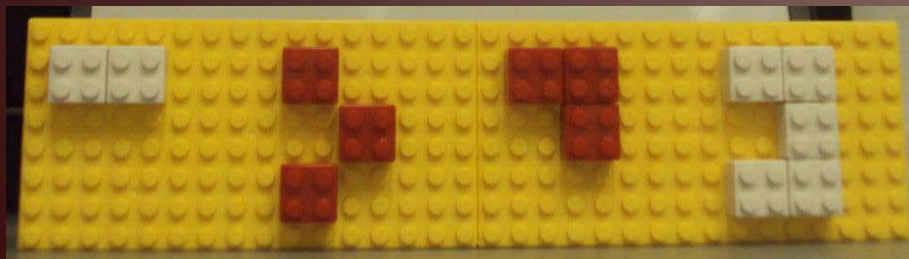


Maker Kits for
Check-Out

Stealth Programming



Build a hedgehog!



Write your name in Braille using bricks...

Challenge: Build model, snap a picture, post information, enter to win!



Stealthier...



Makers Not Spaces...



Develop makers...the space will come!

Any place can be a maker space!

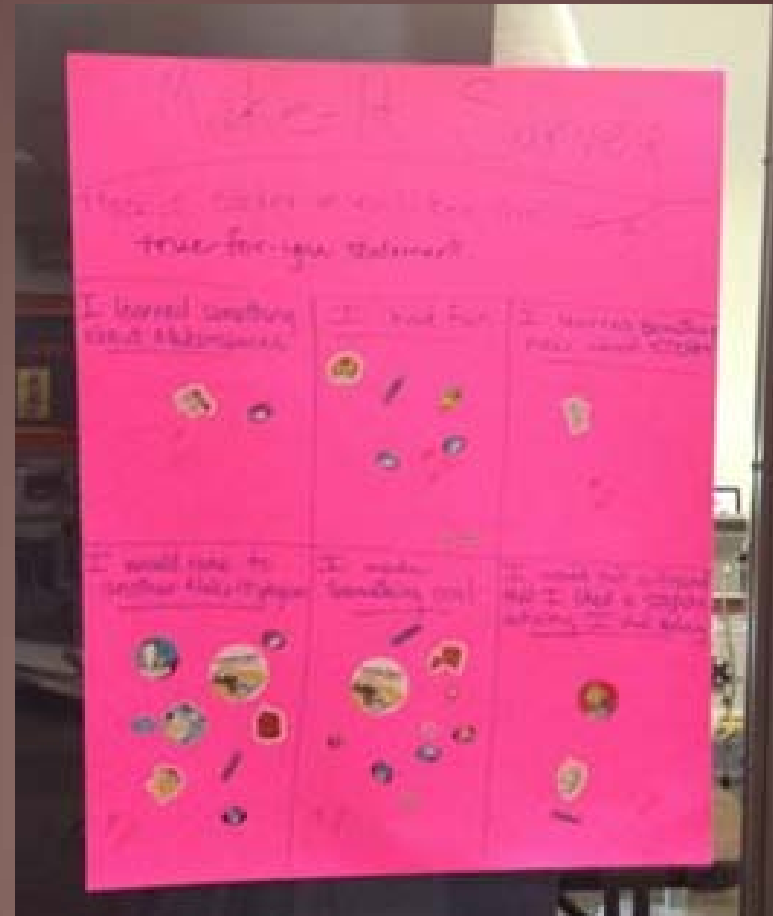


Temporary Makerspaces

- Video Shown Here

Evaluation

- Pre & post survey for teen participants
 - Skill acquisition, attitudinal and behavioral changes
- Reports from libraries
 - Program details, attendance, partnerships, marketing, attitudinal changes, space planning, next steps



Work in Progress



Teen Program Evaluation Tool

Program Name _____

Date/Time: _____ Total # of Attendees: _____

Use this tool to poll attendees before and after your program. You just need to add in your specific areas of focus in the parentheses below. These will be directly related to the desired outcomes of your program. You could always add another question to this, but try to keep it short and easy to administer to teens!

You can poll in a group or ask the questions individually. If you poll as a group, make sure to capture the number of each response in order to collect accurate data. You can then total the responses and divide by the number of participants to get an average "score" for each area and see growth from before to after (we hope!) See the sample evaluation provided for an example of what this might look like.

Two thumbs up is the highest response or a 5, one thumbs-up a 4, a side-ways thumb is right in the middle or a 3, one thumbs down a 2, and two thumbs down is the lowest score or a 1.

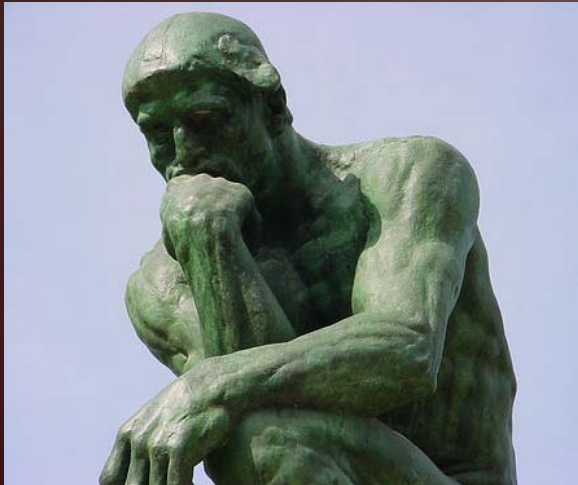


Use the back of this sheet to record anecdotal data. Things you hear the teens say that capture the success of the program, or help you see areas you can improve are all valuable. Make notes on things you see the teens doing as well. These all add to the picture of your program's impact on the teens.

BEFORE the program (1 is low and 5 is high)	AFTER the program (1 is low and 5 is high)	Average Scores Before/After
1. My overall understanding of (topic here) (low) 1 - 2 - 3 - 4 - 5 (high) # of each	1. My overall understanding of (topic here) (low) 1 - 2 - 3 - 4 - 5 (high) # of each	
2. How confident are you with (tools/software here) (low) 1 - 2 - 3 - 4 - 5 (high) # of each	2. How confident are you with (tools/software here) (low) 1 - 2 - 3 - 4 - 5 (high) # of each	
3. My ability to build/make/create (project here) (low) 1 - 2 - 3 - 4 - 5 (high) # of each	3. My ability to build/make/create (project here) (low) 1 - 2 - 3 - 4 - 5 (high) # of each	
4. My interest in STEAM topics or areas: (low) 1 - 2 - 3 - 4 - 5 (high) # of each	4. My interest in STEAM topics or areas: (low) 1 - 2 - 3 - 4 - 5 (high) # of each	
5. How likely are you to come to another program similar to this one? (low) 1 - 2 - 3 - 4 - 5 (high) # of each		Average score:

High Points

- Staff gained confidence
- Encouraged new thinking about:
 - Space
 - Collections
 - Programming



- Expanding beyond the library
- Developing our “brand”
- Embracing innovation
- Building strong partnerships

Moving Forward in Year 2



Replicate Year One Format

- Same Tools
- Same Training
- Same Expectations

- Returning libraries get additional staff trained
- Act as mentors for new libraries
- Have freedom to choose new tools and materials

Spreading the Word

- Facebook: www.facebook.com/MakeItIdaho
- Website: libraries.idaho.gov/make-it-idaho
- Presentations:
 - American Library Association annual conference
 - Afterschool Alliance webinar
 - Association for Small & Rural Libraries conference
 - Idaho Library Association conference
 - *Innovation in U.S. Libraries* video conference – Paris, France
 - Pacific Northwest Library Association conference
 - 2014 IMLS WebWise *Anchoring Communities* Conference

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What Will You Make?

