



Make It at the Library

Community Outreach Project Toolkit
2013 Cohort

Table of Contents

<u>Introduction</u>	3
<u>Kit Contents</u>	4
<u>Train the Trainer Workshop Overview</u>	5
<u>Suggested Workshop Agenda</u>	6
<u>The Maker Mindset</u>	7
<u>Design Thinking and Design Cycle</u>	8
<u>Action Planning</u>	9
<u>Evaluation</u>	10
<u>Resources</u>	13
Powerpoint Presentation	
Additional Articles & Websites	

INTRODUCTION

The Idaho Commission for Libraries' *Make It at the Library* project is supporting the 2013 Cohort Libraries in sharing making with organizations in their community.

Participating 2013 libraries will utilize this toolkit and the supporting outreach kits containing making tools and materials, training materials, and evaluation tools to introduce making to community organizations.

Outreach kits and materials will be used to support the train the trainer workshop and will then be provided to the community organizations for use with their youth event. After the community organizations have completed their event(s) they will return the kits to the library.

If additional consumable materials are required to complete youth events, please contact the Idaho Commission for Libraries and provide a list of items required. The Commission will make every effort to provide the materials necessary.

KIT CONTENTS

KIT ONE: MaKey MaKey & Squishy Circuits

Items	# per library
Makey Makey kit	8
Jumper Wires	1
Wire Strippers	2
LEDs all colors	3
Motors	5
Piezoelectric Buzzers	8
Squishy Circuit Kits	4
Play Doh (4 pack)	6
Alligator Wires (10 pack)	2
Scratch Programming Book	4
Squishy Circuits Book	4
The Art of Tinkering Book	1

KIT TWO: Circuit Blocks

Items	# per library
Circuit Blocks Set	4
Battery Block	4
Extra lightbulbs	4
Battery Charger w 4 pack AA batteries	2
Batteries - AA - rechargeable (4 pack)	2
Makerspaces - 21st Century Skills Book	4
The Art of Tinkering Book	1
Making Makers Book	2

TRAIN THE TRAINER WORKSHOPS

Purpose: To provide an overview of making, share information on existing library programs, allow participants to experiment with making materials available for use with their clientele, and brainstorm ways to incorporate the tools into a making activity with their clientele.

Format: Hands-on

Number of Community Organizations Trained: Four

Minimum Workshop Length: Four hours

Target Audience: Community Organizations serving youth ages 5 -18. If working with community organizations with which the library has an existing partnership, the training must be with an audience that has not worked with making before. The goal is to spread making into new groups, populations, ages, and environments as much as possible.

Community Organization Expectations: To participate in this project, at least one staff member from the organization must participate in the Train the Trainer workshop. Additional staff may participate at the discretion of the library. The organization must agree to host at least one maker activity with its clientele and share the details of the activity with the library using this [form](#) to ensure consistency in data gathered.

SUGGESTED WORKSHOP AGENDA

Welcome, introductions, overview of agenda: 15 minutes

What is making? Sharing/discussion, include discussion of design cycle, maker philosophy, importance of sharing your story and celebrating success: 30 minutes

Making activity: Simple project to allow participants to experience making and demonstrate how to facilitate a making experience: 30 minutes

Overview of library making activities, audience: Make as interactive as possible with video, photos, etc. 30 minutes

Break: 15 minutes

Exploring the kit(s): Hands on activities with kit tools, discussion of possible audiences and projects. Include an action plan form for participants to complete: 75 minutes

Evaluating Making: 15 minutes

Next steps: 25 minutes

Ask each organization to share how they envision using the tool kit.

Establish timeline for next steps including sharing of kits

Workshop evaluation completed: 5 minutes

End workshop

DALE DOUGHERTY'S "THE MAKER MINDSET"

<https://llk.media.mit.edu/courses/readings/maker-mindset.pdf>

Excerpt:

Here are some thoughts for bringing the Maker Movement to education:

- Create a context that develops the maker mindset, a growth mindset that encourages students to believe they can learn to do anything;
- Build a new body of practice in teaching making and develop a corps of practitioners;
- Design and develop makerspaces in a variety of community contexts that serve a diverse group of learners who do not all share the same resources;
- Identify, develop, and share a broad framework of projects and kits, based on a wide range of tools and materials that connect to student interests in and out of school;
- Design and host online social platforms for collaboration among students, teachers, and the community;
- Develop programs especially for young people that allow them to take a leading role in creating more makers in schools, afterschool programs, summer camps, and other community settings;
- Create a community context for the exhibition and curating of student work in relationship with all makers and making, such that new opportunities are created for more people to participate;
- Allow individuals and groups to build a record of participation in the maker community, which can be useful for academic and career advancement as well as support the student's growing sense of personal development;
- Develop educational contexts that link the practice of making to formal concepts and theory, to support discovery and exploration while introducing new tools for advanced design and new ways of thinking about making (practically, this means developing guides for teachers, mentors, and other leaders); and
- Develop in all students the full capacity, creativity, and confidence to become agents of change in their personal lives and in their community.

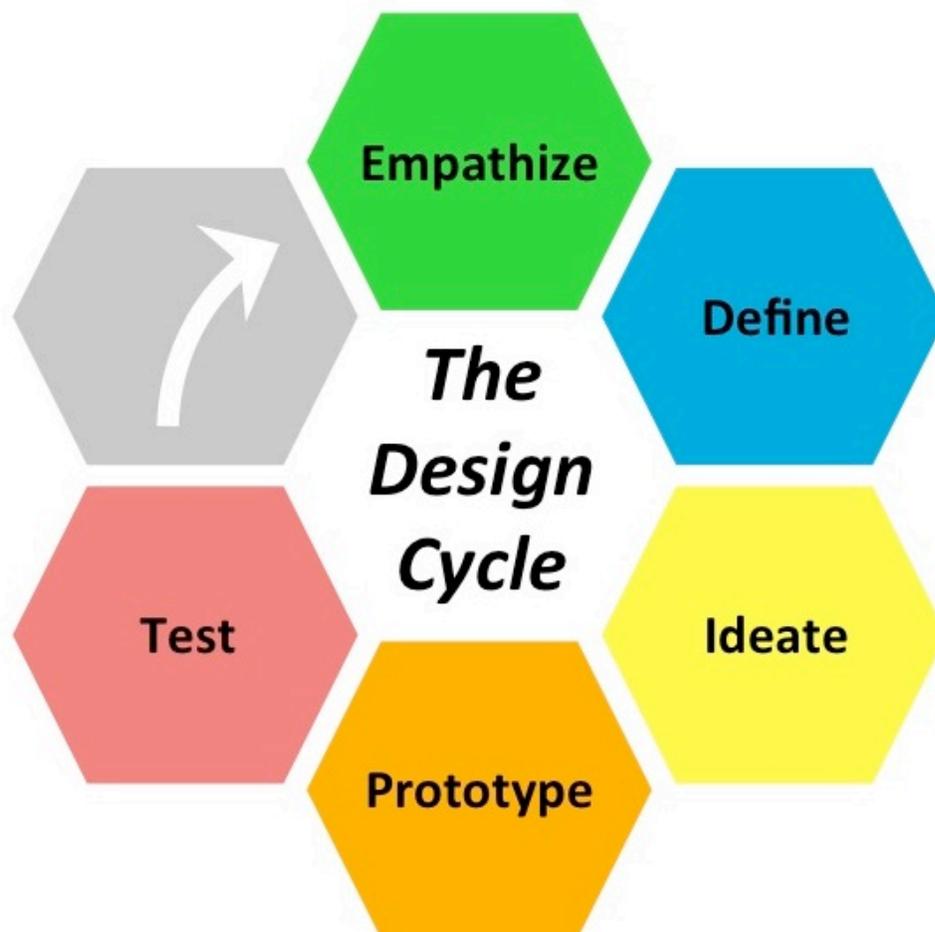
DESIGN THINKING AND THE DESIGN CYCLE

What is Design Thinking?

Design Thinking is a methodology used by designers to solve complex problems, and find desirable solutions for clients. It draws upon logic, imagination, intuition, and systemic reasoning, to explore possibilities of what could be, and to create desired outcomes that benefit the end user. A design mindset is not problem-focused, it's solution focused, and action oriented. It involves both analysis and imagination.

In its simplest form, design thinking is a process—applicable to all walks of life—of creating new and innovative ideas and solving problems.

You can download the design thinking graphic [here](#).



ACTION PLANNING

Action planning can be useful when implementing a new project. It helps you determine a reasonable timeline, identify resources needed, assign roles, and outline costs.

A sample action plan that you can share with your community organizations to help them plan their making events is included in the toolkit for your convenience and is linked [here](#). It is recommended that you allow some time during the workshop for participants to work on the action plan to facilitate.

ACTION PLAN FOR COMMUNITY ORGANIZATION MAKING PROJECTS

Target Audience:

Expected Attendance:

Partners:

Program Dates/times:

Program Description:

Technology and Materials Needed:

Project Steps:

<u>What:</u>	<u>Where:</u>	<u>When:</u>	<u>Responsibility:</u>	<u>Est. Hours/Cost:</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Evaluation:

<u>What:</u>	<u>Where:</u>	<u>When:</u>	<u>Responsibility:</u>	<u>Est. Hours/Cost:</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Reflection and Sharing Your Story:

<u>What:</u>	<u>Where:</u>	<u>When:</u>	<u>Responsibility:</u>	<u>Est. Hours/Cost:</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

EVALUATION

Evaluating Your “Train the Trainer” Workshop

It is important to conduct a short survey at the conclusion of your workshop to identify strengths as well as pinpoint areas needing improvement. This will help you develop and refine any future workshops. We have included a “Skills Ladder” survey for each participant at the workshop to complete. These were designed to be anonymous in order to obtain accurate and truthful feedback.

Once your workshops are completed we request that you send all surveys to the ICfL so that we may review the data. We encourage you to make a copy of the data before sending them to the ICfL so that you have a record of the comments and feedback.

Download the evaluation [here](#).

 Making Outreach with Community Organizations Please circle the number that most accurately describes your opinion.	
BEFORE the course, where were you on the skills and knowledge ladder? (1 is low and 5 is high)	AFTER the course, where are you on the skills and knowledge ladder? (1 is low and 5 is high)
1. My understanding of the maker culture and philosophy in general: (low) 1 - 2 - 3 - 4 - 5 (high)	1. My understanding of the maker culture and philosophy in general: (low) 1 - 2 - 3 - 4 - 5 (high)
2. My understanding of how the design cycle supports learning through making: (low) 1 - 2 - 3 - 4 - 5 (high)	2. My understanding of how the design cycle supports learning through making: (low) 1 - 2 - 3 - 4 - 5 (high)
3. My ability to successfully complete a making activity: (low) 1 - 2 - 3 - 4 - 5 (high)	3. My ability to successfully complete a making activity: (low) 1 - 2 - 3 - 4 - 5 (high)
4. My understanding of how making could engage my clientele in learning: (low) 1 - 2 - 3 - 4 - 5 (high)	4. My understanding of how making could engage my clientele in learning: (low) 1 - 2 - 3 - 4 - 5 (high)
5. My ability to develop and implement a making project for my clientele: (low) 1 - 2 - 3 - 4 - 5 (high)	5. My ability to develop and implement a making project for my clientele: (low) 1 - 2 - 3 - 4 - 5 (high)
6. My ability to identify outcomes and evaluation indicators in making programs: (low) 1 - 2 - 3 - 4 - 5 (high)	6. My ability to identify outcomes and evaluation indicators in making programs: (low) 1 - 2 - 3 - 4 - 5 (high)

Make It Overview
Workshop Evaluation, Page 1

Course Methods and Instruction	Disagree ----- Agree
7. Instructor was knowledgeable and communicated effectively.	1 - 2 - 3 - 4 - 5
8. Instructor responded effectively to questions and comments.	1 - 2 - 3 - 4 - 5
9. Instruction improved my overall knowledge of making.	1 - 2 - 3 - 4 - 5
10. I am likely to apply what I learned.	1 - 2 - 3 - 4 - 5
11. This course will improve my ability to provide services to my clientele.	1 - 2 - 3 - 4 - 5
12. Time allowed for the course was: (circle one)	Too short - About right - Too long

13. In order to make this course better, I suggest:

14. Was there content missing or is there something you wanted to learn and didn't?

15. Other comments:

Evaluating Makers

One of the challenges we have faced throughout the Make It at the Library project is finding a way to evaluate the effectiveness of making with the youth involved.

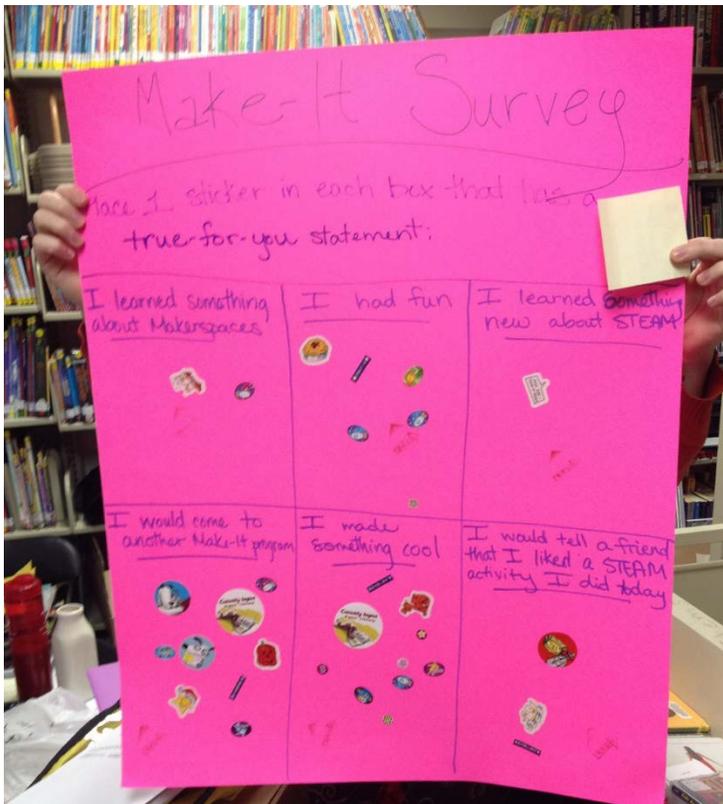
One of the best ways we have found thus far is in gathering anecdotal data. This can be in the form of comments overheard, staff observations, or a video recording of making in progress. You are encouraged to talk about the value of collecting data with the workshop participants and ask them to think about ways that they can evaluate the learning occurring during the events and activities they host.

It isn't all about whether your kids are learning "hard" skills with a specific tool either. Important skills such as problem solving, critical thinking, collaborating with others, mentoring others, and "failing forward" are strong indicators of

learning taking place. Also note the language being used, or the tone of the conversations. Are the kids excited? Smiling? Engaged? These are all important things to keep an eye out for and to record.

Some ideas for evaluating the learning:

- Keep a pen and paper handy during the activity so you can jot down comments heard or make notes on the learning you are observing.
- Enlist the help of a volunteer to ask short questions to the youth and record their responses. These questions can be simple and generic in nature; (ie Tell me something you learned about today.; Did today's activity interest you?; Would you attend another activity like this?; What was one of the most engaging/fun things about today?)
- Have a video camera? Set it up to record the activity and view it later when you have the time to examine it. Make notes on what you observe.
- Create a simple poster like the one below. Ask your kids to share their thoughts on the activity throughout the event or at the end and collect the data to review and share.



RESOURCES

Powerpoint Presentation for Community Organization Workshop can be downloaded here. You are welcome to modify this presentation to meet your needs or the specific audience you are training.

Additional Articles & Resources

More about Maker Mindset and Making

- <http://www.edutopia.org/blog/capture-learning-crafting-maker-mindset-lisa-yokana>
- <http://www.teacherlibrarian.com/2014/06/18/educational-makerspaces/>
- https://en.wikipedia.org/wiki/Maker_culture

More about Design Thinking and the Design Cycle

- <https://makingthinkinghappen.wordpress.com/2013/10/22/maker-empowerment-a-concept-under-construction/>
- <http://www.agencybydesign.org/>
- <http://www.designthinkingforeducators.com/design-thinking/>
- https://en.wikipedia.org/wiki/Design_thinking