BUILDING IDAHO MAKERS
A STATEWIDE APPROACH

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libraries.idaho.gov/make-it-at-the-library
WHAT'S YOUR EXPERIENCE?
What
Every organization on the planet knows WHAT they do. These are products they sell or the services they offer.

How
Some organizations know HOW they do it. These are the things that make them special or set them apart from their competition.

Why
Very few organizations know WHY they do what they do. WHY is not about making money. That’s a result. It’s a purpose, cause or belief. It’s the very reason your organization exists.
Percentage of students at or above the *Proficient* level in 2013

**Overall**

**Mathematics**

26%

**Selected Student Groups**

- **Race/ethnicity**
  - Asian/Pacific Islander: 47
  - White: 33
  - Two or more races: 26
  - American Indian/Alaska Native: 12
  - Hispanic: 12
  - Black: 7

- **Highest level of parental education**
  - Graduated from college: 38
  - Graduated from high school: 12
LIFELONG LEARNING

A relatively small percentage of waking hours across the life span are spent in formal educational environments.

- **Formal Learning Environments**
  - Ages 0-5: 9.25%
  - Grades 1-12: 18.5%
  - Postgraduates: 7.7%
  - Undergraduates: 5.1%
  - Workers: 1%
  - Retirees: 2%

**SOURCE:** Learning in Informal and Formal Environments Center
Only 8.4 million K-12 children participate in after school programs. 18.5 million would participate if a quality program were available in their community. (After School Alliance, 2009)

Over 15 million school-age children are on their own after school. Among them, more than 1 million are in grades K-5. (After School Alliance, 2009)

The top 10% of income earners spend 7 times more than the bottom 10% on out-of-school enrichment programs.

CLAlliance.org
NEW RESEARCH SHOWS • Afterschool Is a Real Solution Linked to Closing the Gap

Afterschool Participation Narrows the Math Achievement Gap

Income differences in math achievement were eliminated for students who had consistent afterschool activities across K-5

New research demonstrates that more consistent time spent in afterschool activities during the elementary school years is linked to narrowing the gap in math achievement at grade 5.

What the data indicate:

» When afterschool participation is highly consistent, there is no gap in low-income and high-income children’s math achievement at grade 5.

» The more consistent the afterschool participation, the narrower the gap in math achievement.

» The more rarely students participate in afterschool activities, the wider the achievement gap.


PRACTICE MAKES PERFECT
WE NEED TO COOK!
A DUAL APPROACH

Top-Down + Bottom-Up = Success
BUILDING BLOCKS

- Mentors
- Collaboration
- Evaluation Tools
- On-Going Support
- Making Kits & Materials
- Focused, Hands-On Training
START WITH TEENS

ELECTRONICS KITS

E-TEXTILES

EDVENTURES! ROBOTICS

3D PRINTING & DESIGN

FISCHERTECHNIK®
TRAINING IS KEY!

- Foundational work
- Hands-on with real tools
- Responsive to needs
- Relevant to outcomes
OUTSIDE SOURCES FOR FUNDING AND IDEAS
BRING IN OUTSIDE HELP!

Instead of asking people for money… ask them to donate their time.
USE WHAT YOU HAVE!
PORTNEUF PROGRAMS!

Door Alarm!

Light up bookmark
RESOURCES

Start a Young Makers Club
http://youngmakers.org/

PBS Design Squad
http://pbskids.org/designsquads/parentseducators/index.html

Make Magazine: Great Resource, Great Ideas!!

Steve Spangler Science Experiments and Explanations
http://www.stevespanglerscience.com/lab/experiments

Instructables Build Nights
http://www.instructables.com/howto/build-nights/

Pinterest Make it @ your Library
http://www.pinterest.com/makeitlib/
FORMAL PROGRAMS

Bridge Challenge
Structural Engineering & Critical Thinking

Life-Size Angry Birds
Fosters Creativity!

Zhu-Zhu Pet Battles
Involved Problem Solving

Fischertechnik® Carnival Ride
Explores Force & Gravity

LEG® Pinball
Machines Use Levers
NOT JUST TECHNOLOGY!

Meet the Sheep!

Washing wool

All about shearing

Final product!
RE-CYCLE AND RE-USE!

Boat Race Challenge

Problem-Solving, Innovation, & Creativity
MORE IDEAS...

Generate interest through displays

Seek out mentors and community partners

Get started faster through organization

Think outside the box!
MORE IDEAS...
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, be entered to win!
STEALTHIER...
MAKERS NOT SPACES...

Any place can be a makerspace!

Develop makers...the space will come!
TEMPORARY MAKERSPACES

Check out this video on youtube to see a timewarp of a Meridian Maker program.

https://www.youtube.com/watch?v=3iZP7Eujgjk&feature=youtu.be
EVALUATION & RESULTS

• 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

Impact in 2013 Year One...
- 4,650 teens and tweens engaged through outreach
- 3,585 attended library programs
- 18 partnerships through 66 events
HIGH POINTS

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

• Expanding beyond the library walls
• Developing our “brand”
• Embracing innovation
• Building strong partnerships
YEAR TWO PLAN

Replicate Year One Format
• Same Tools
• Same Training
• Same Expectations & Requirements

Returning libraries
• One additional staff trained
• Act as mentors for new libraries
• Choose new tools & materials to expand programming

Building a network of makers with skills & tools to support one another and their communities!
Pre-K Project
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 2013, 2014
- Idaho Library Association conference 2013, 2014
- Innovation in U.S. Libraries video conference – Paris, France 2013
- Pacific Northwest Library Association conference 2013, 2014
- 2014 IMLS WebWise Anchoring Communities Conference, Baltimore, 2014
- 2014 IMLS Summit, San Francisco 2014
- Mayors Conference, Louisville, October 2014

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QUESTIONS
IDEAS
INPUT
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