BUILDING IDAHO MAKERS
A STATEWIDE APPROACH

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libraries.idaho.gov/make-it-at-the-library
WHAT'S YOUR EXPERIENCE?
WHAT'S OUR Why?

START WITH WHY

SIMON SINEK

HOW GREAT LEADERS INSPIRE EVERYONE TO TAKE ACTION
Percentage of students at or above the Proficient level in 2013

OVERALL

SELECTED STUDENT GROUPS

Mathematics

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.

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. (Afterschool 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. (Afterschool 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.

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

FISCHERTECHNIK®

3D PRINTING & DESIGN
TRAINING IS KEY!

- Foundational work
- Hands-on with real tools
- Responsive to needs
- Relevant to outcomes
Small communities are often a wealth of individuals with special interests and skills.
WHAT DO YOU HAVE?

Two libraries, same program: Recycled Art

- **Post Falls** – population of 28,000
- Library is approximately 22,000 square feet
- **Spirit Lake** – population of 2,000
- Library is approximately 5,000 square feet

Meeting room at Post Falls: capacity 88

Meeting room at Spirit Lake: capacity 23
BUILD IT!

- Weekly after school program targeting elementary-age children.
- Offers a place to free-build and create with a variety of materials.
- LEGO drive, donations, ICfL, and Friends’ grants made this program happen!
POST FALLS PROGRAMS

Outreach at high school with 3D printer

Cooking with Chef Guido

Woodland Fairy Houses
SPIRIT LAKE PROGRAMS

• Science Saturdays
• Cardboard Challenge
• Pottery Making
LOOKING AHEAD

• Maker Teens - monthly program
• Stealth programming
• Additions to Build It!
RESOURCES

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

PBS Design Squad
http://pbskids.org/designsquadt/parentselfucators/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

LEGO® 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!
RESPOND TO COMMUNITY NEEDS

Star Wars Cardboard Challenge for the Whole Family!

Maker Kits for Check-Out

Young Makers in N. Idaho
STEALTH PROGRAMMING

- Build a hedgehog!
- Write your name in Braille using bricks...
- Challenge: Build model, snap a picture, post information, be entered to win!
Develop makers... the space will come!

MAKERS NOT SPACES...

Any place can be a makerspace!
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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