



BUILDING IDAHO MAKERS A STATEWIDE APPROACH

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

WHAT'S YOUR EXPERIENCE?



Maker Faire



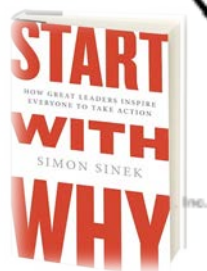
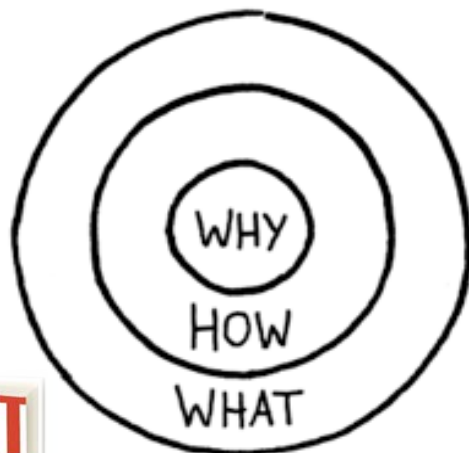
Maker Camp

Make: — Google

**WE ARE
MAKERS**

WHAT'S OUR Why?

The Golden Circle



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.

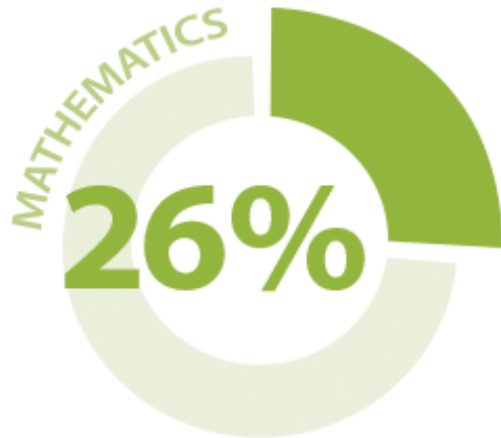
Why

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.

THE REALITY

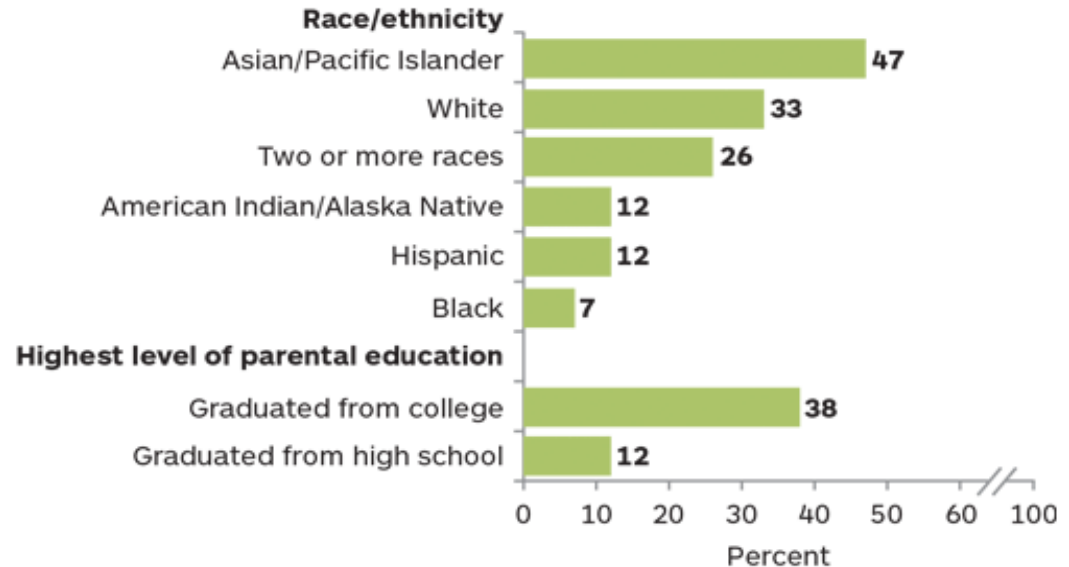
Percentage of students at or above the *Proficient* level in 2013

OVERALL



SELECTED STUDENT GROUPS

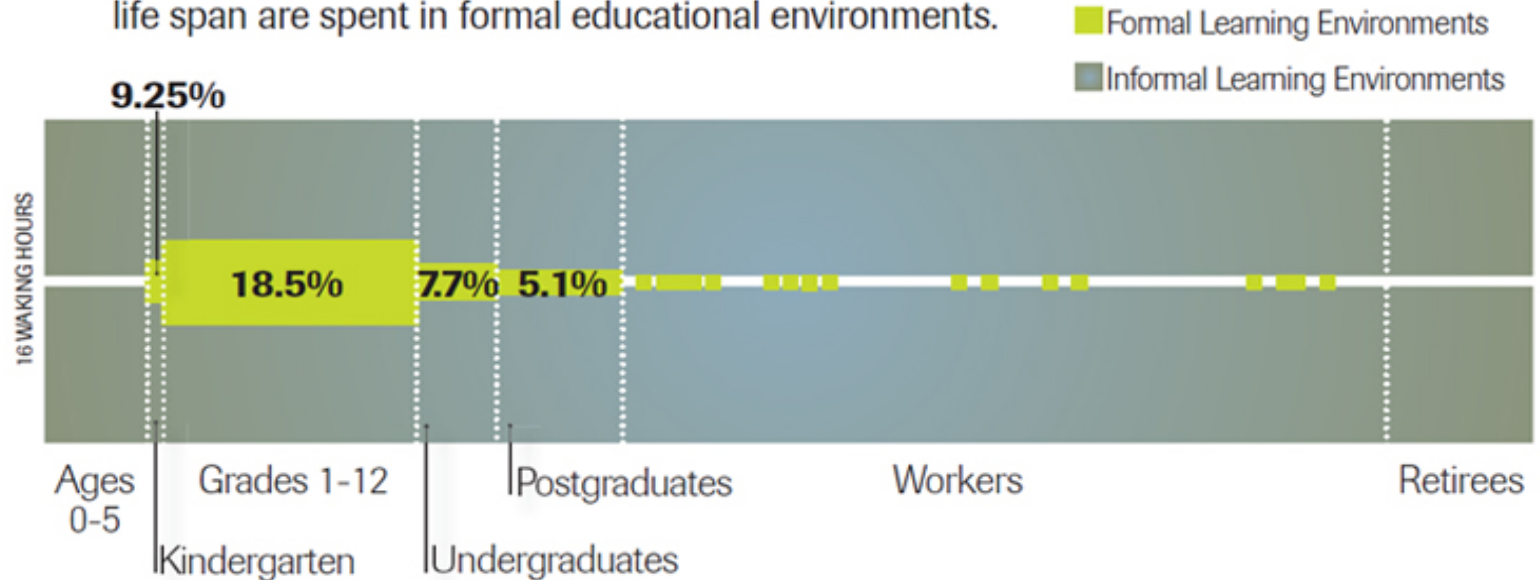
Mathematics



OUT-OF-SCHOOL TIME

LIFELONG LEARNING

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

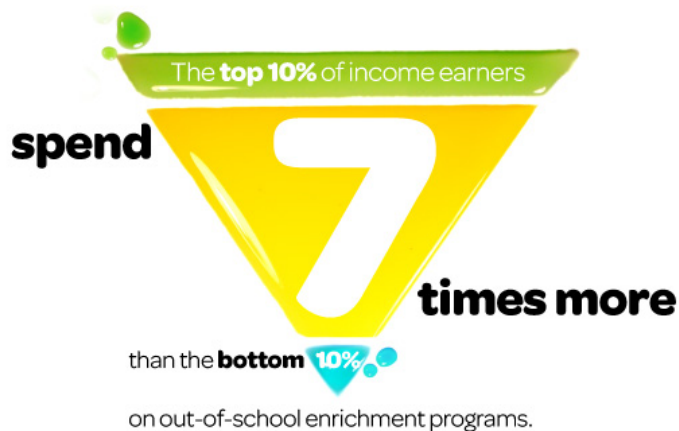


SOURCE: Learning in Informal and Formal Environments Center

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)



CLAlliance.org

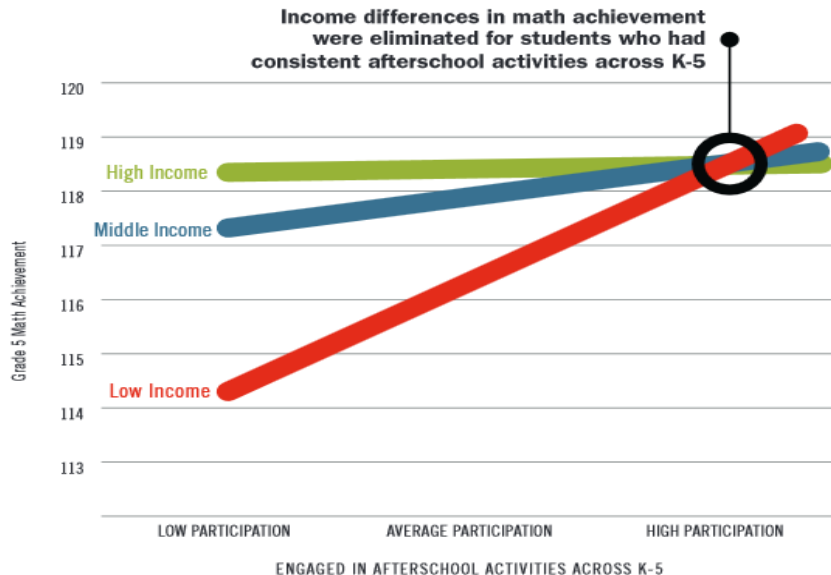


PRACTICE
MAKES
PERFECT

NEW RESEARCH SHOWS

Afterschool Is a Real Solution Linked to Closing the Gap

Afterschool Participation Narrows the Math Achievement Gap¹



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

1. Pierce, K. M., Auger, A. and Vandell, D. L. (April, 2013). *Narrowing the Achievement Gap: Consistency and Intensity of Structured Activities During Elementary School*. Unpublished paper presented at the Society for Research in Child Development Biennial Meeting, Seattle, WA.



WE NEED TO COOK!



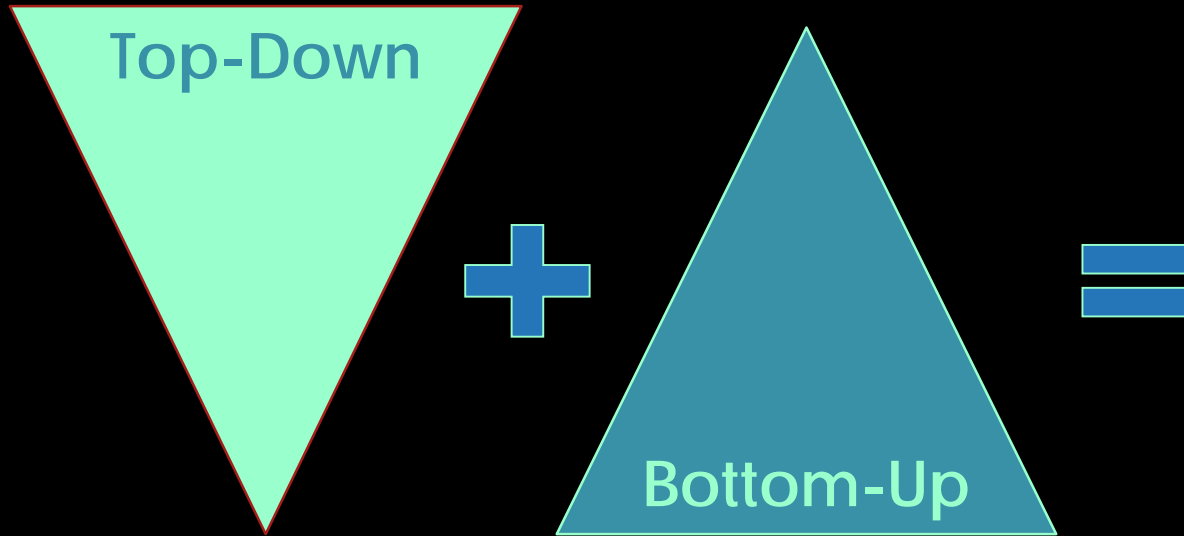


★
Year 1
★
Year 2





A DUAL APPROACH



BUILDING BLOCKS



Mentors

Collaboration

Evaluation Tools

On-Going Support

Making Kits & Materials

Focused, Hands-On Training

START WITH TEENS

ELECTRONICS KITS



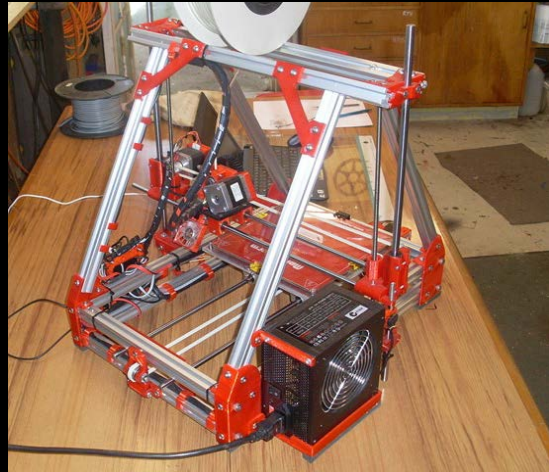
E-TEXTILES



EDVENTURES! ROBOTICS



FISCHERTECHNIK®



3D PRINTING & DESIGN

TRAINING IS KEY!



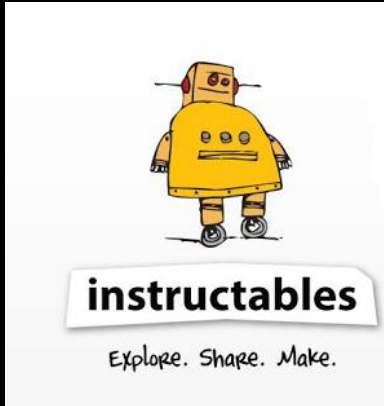
- Foundational work
- Hands-on with real tools
- Responsive to needs
- Relevant to outcomes







Pinterest

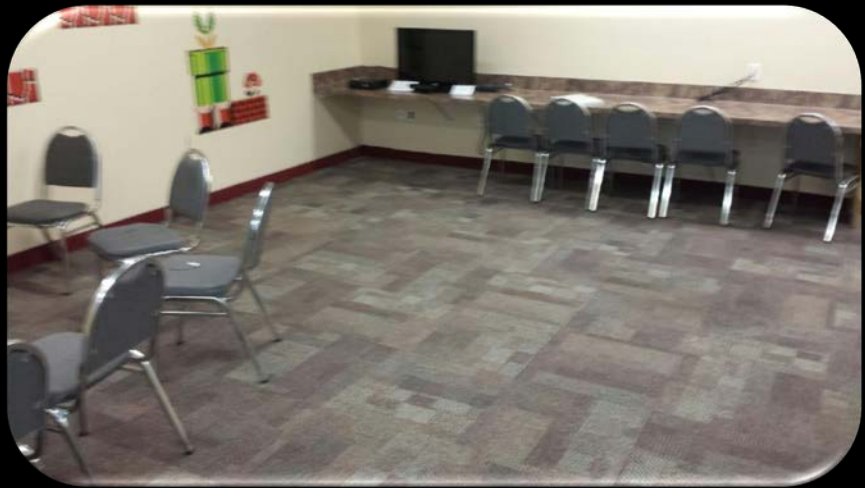


OUTSIDE SOURCES FOR FUNDING AND IDEAS

BRING IN OUTSIDE HELP!



Instead of asking people for money...
ask them to donate their time.



USE WHAT YOU HAVE!

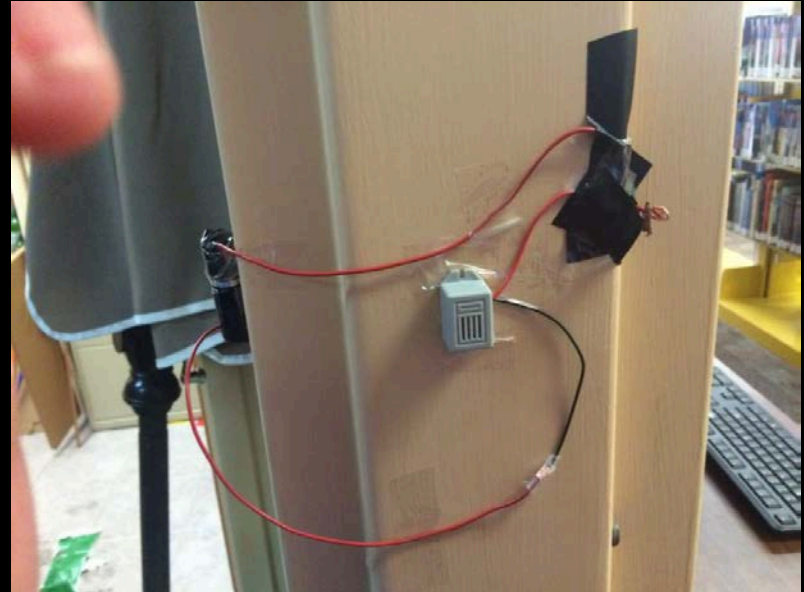
PORTNEUF PROGRAMS!



Light up
bookmark



Door Alarm!



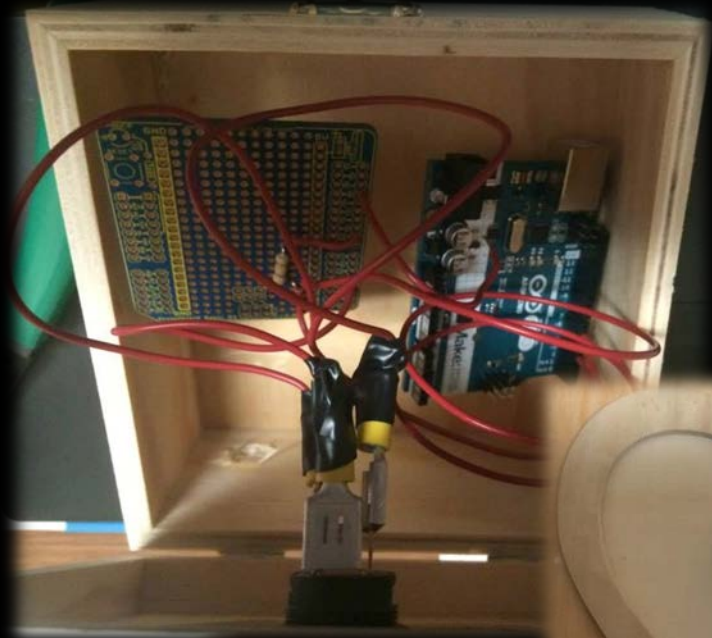


Photo Booth

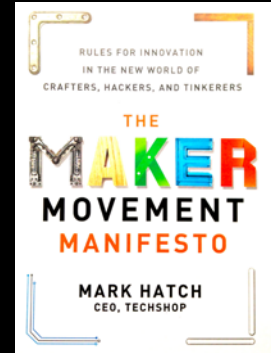


Egg Stomp Rockets

RESOURCES

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

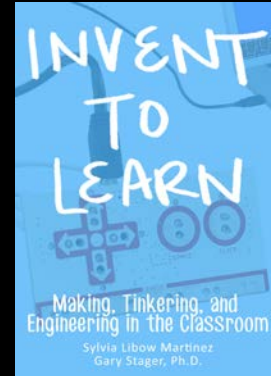
PBS Design Squad
<http://pbskids.org/designsquad/parentseducators/index.html>



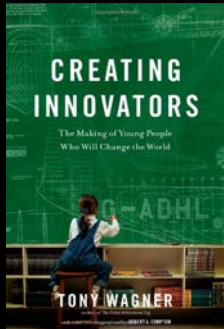
Make Magazine: Great Resource, Great Ideas!!

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

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...

Get started faster
through organization



Think outside the box!

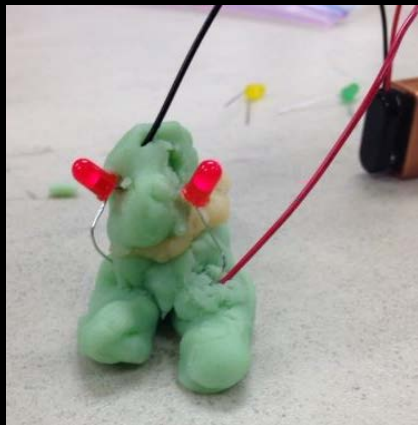


Seek out mentors and
community partners



Generate interest
through displays

MORE IDEAS...



Young Makers
in N. Idaho



Star Wars Cardboard Challenge
for the Whole Family!



Maker Kits for
Check-Out

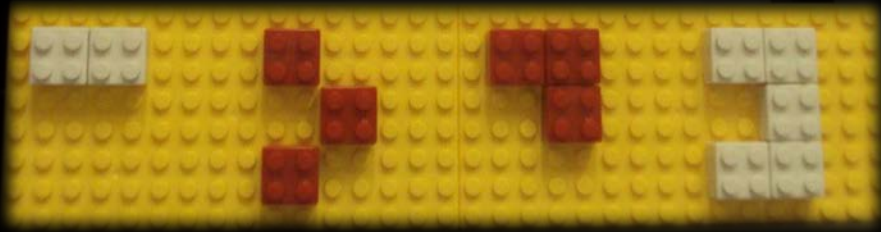


RESPOND TO COMMUNITY NEEDS

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
maker space!



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

Information - erica.compton@libraries.idaho.gov

QUESTIONS
IDEAS
INPUT
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