

Board Meeting

May 17, 2016



IDAHO
STEM
ACTION CENTER

Room WW53

1:00 - 4:00 pm

Mastery Education Update

Welcome Kelly Brady

- Director of Mastery Education at the SDE



PROS

- Would allow us to apply for certain grants
- Would allow us to participate in the Idaho Gives Campaign
- Link to Utah's proposed foundation, paperwork filed May 5, 2016:
<http://utahpolicy.com/index.php/features/featured-articles/9413-utah-stem-action-center-establishes-foundation-and-appoints-director>

CONS

- Formation will require legal assistance to file for certificate of incorporation, etc.
- Must form a unique Board of Directors, hire a Director, create bylaws, mission/vision, personnel manual, EIN, office location and equipment and insurance plan
- Must comply with separate IRS tax filings
- Must keep a distinct and separate accounting spreadsheet and bank records (cannot be overseen by state financial services)
- Cannot bill any administrative costs to the STEM Action Center
- Must develop a unique fundraising plan

501 c3 Status

Partners

- Idaho Community Foundation
- Idaho After School Network
- Idaho Science Teachers Association
- Idaho Math, Science and Technology Coalition

Roles

- STEM Action Center will co-author grants
- STEM Action Center can be a sub-grantee for any awarded funds

Potential 501c3 Partners

RECEIVED - \$72,000:

- Family STEM Events - Micron Foundation (\$10,000) and Tesoro Foundation (\$24,000)
- AT&T Grant for STEM summer coding camps for HS students (\$20,000)
- INDEEDS Awards (\$8,000 from various companies including Micron, HP and Idaho Power)
- Pi Day Fundraiser (~\$10,000)

DID NOT RECEIVE:

- INCLUDES (3 different groups) – with BSU, with Utah STEM Action Center and STEMx
- Youth Skills Grant – with the State Board, SDE and CTE

APPLIED FOR:

- STEM Academy and Hearst Foundation
- MHSD and CS in XQ Super Schools Project Grant
- Glanbia Grant for FabSLAM Showcase event travel
- FIRST Community Grant
 - With Idaho After School Network, FIRST, Girl Scouts, BSU, ISU and STEM Idaho
- We have also been approached by a number of foundations (Jager and Lemelson)
- Also in discussion with ITC, Idaho Power, HP, Verizon and Cable One, etc.

Grant Updates

Tracking Indirect Funds

- Working on a tracking system to determine how our support has been a catalyst to bring in additional funds to various events
 - We want capture revenue that does not necessarily flow through the Center
 - For example, FIRST Regionals Competition
 - Our \$50,000 donation helped spur an additional \$100,000 in industry donations
 - We are also co-authoring numerous grants where the funding will not run through the Center, but our involvement may make it more likely that we will secure these funds.
-

Computer Science Program Manager Update

- We received 25 applications from April 2 – April 29
 - We conducted phone interviews for our top 9 candidate
 - We will host in-person interviews for our top 4 candidates the week of May 23rd.
 - We will offer the position late May/early June
 - July 5th is the anticipated start date
-

Strategic Planning and Long-Term Goals – Beginning Discussion

- See Handouts
 - DUE: July 1 (It's the Law)
 - Each Agency creates its own template (requirements vs optional with various layouts and designs)
 - See Handouts
 - Doodle Poll Forthcoming
 - Level of involvement: Electronic Reviewer
 - In-Person Meetings: Week of May 31 and Week of June 13
 - Attend one, both or neither
-

Metrics to Measure Outcomes/Impact

As Dictated in §67-823, the Center shall track and compare growth of students participating in Center activities to those that do not in the areas of:

- Number who are performing at grade level in STEM classes
 - **Student performance**
 - Graduation rates
 - Number who graduate from Idaho and begin post-secondary programs
 - Number that take STEM education courses at higher education institutions
 - Number of educators receiving **high-quality professional development**
-

Additional Metrics to Develop

- Assessment subpopulations breakdown (ISAT, NAEP, SAT/ACT)
 - Growth data in student growth percentile (SGP)
 - Gap analyses including assessments (NAEP and ISAT) and industry
 - Industry needs assessment including educators
 - Work with State Board of Education regarding metrics of the STEM Statewide Strategic Plan
 - Qualitative variables related to STEM Family Nights and Educator Grants (Intern and Northwest Education)
 - Student impact surveys including assessments
 - Pre- and post-surveys on STEM attitudes and STEM awareness
 - Communities of practice to share best practices
-

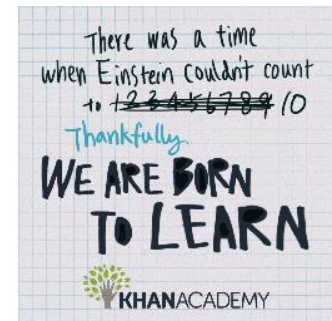
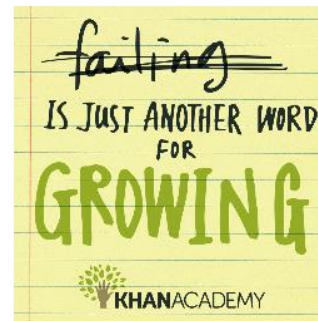
Microsoft Imagine Academy Update

Welcome Rick Kennedy

IT Coordinator for
Microsoft Imagine Academy at the SDE



LearnStorm – Saturday, May 14



<https://www.khanacademy.org/youcanlearnanything>

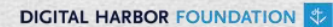
FabSlam Overview

NATIONAL 3D PRINTING COMPETITION FOR YOUTH

Idaho, Pittsburg, and Baltimore

FabSLAM by the numbers:

- ✓ 14 Schools
- ✓ 76 Students
- ✓ 24 Mentors
- ✓ 5 Judges



GOALS

- Introduce educators and youth to 3D printing
 - Build 3D printing expertise across the country
 - Provide youth with design cycle experience (design, market research, prototyping, iterating)
-

FabSLAM Showcase Event at DCI

May 14, 2016

1st Place and Students' Choice Award: Lone Star Middle School, Nampa
HELP -- Homeless Emergency Life Pack

<http://fabslamlms.weebly.com>



2nd Place: Hawthorne Elementary School, Boise Fruit Fly Trap

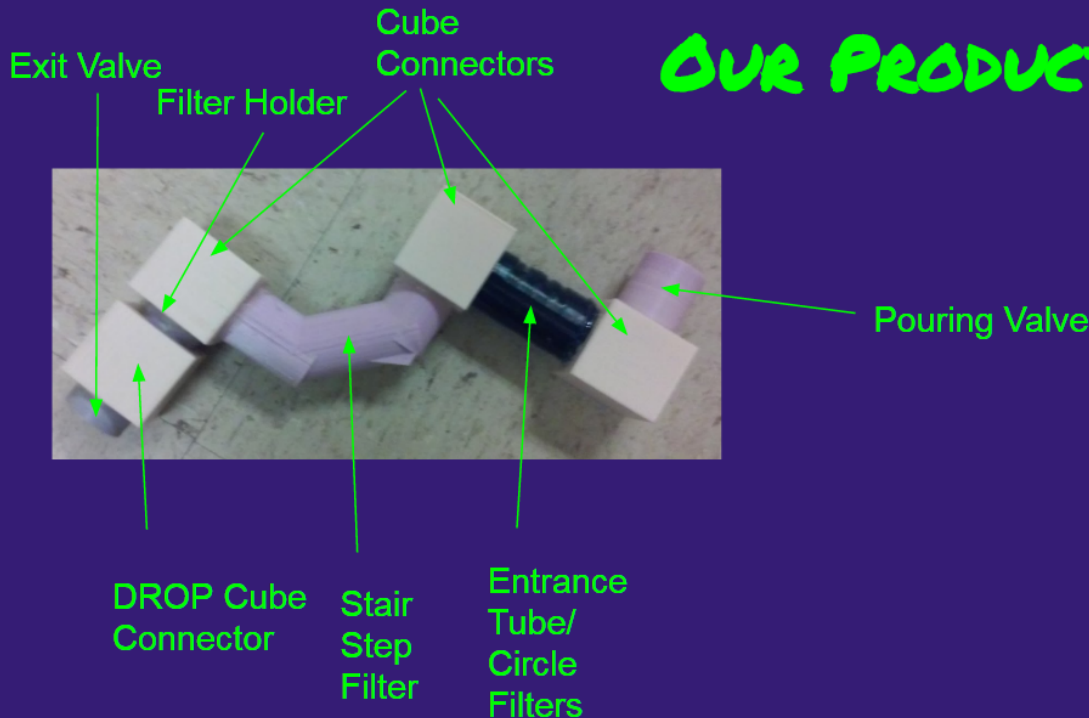
<http://elemengineers.weebly.com/>



3rd Place: Kuna Middle School, Kuna Irrigation Canal Filter

<https://sites.google.com/a/kunaschools.org/3d-fabslam-contest-template/home/coderbunnies-1>

OUR PRODUCT



- Kuna Canal Irrigation Filter
- Goes through a Multi Step Filtration
- Keeps almost everything (except bacteria) unhealthy out of your water.
- Perfect for open canals
- Can be adjusted for different elevations.

Draft Budget Discussion

STEM and Computer Science

HANDOUTS

Analysis by Project

| BY PROJECT | | | | | Benefactors | | | | | |
|-------------------------------------|-----------|-----------|-----------|-------|-------------|-----------|----------|-----------|-----------|-----------|
| | | | | | | Educators | Students | Community | Higher Ed | Workforce |
| Grants | 575,000 | 550,000 | 1,125,000 | 27.50 | X | X | X | | | |
| PD | 497,500 | 509,000 | 1,006,500 | 24.60 | X | | | | | X |
| Scholarships | 221,000 | 448,000 | 669,000 | 16.35 | X | X | | | X | X |
| Competitions | 235,000 | 140,000 | 375,000 | 9.17 | X | X | | | | |
| Mentorship | 180,000 | 140,000 | 320,000 | 7.82 | X | X | | | X | X |
| Conferences | 119,500 | 12,000 | 131,500 | 3.21 | X | | | | X | |
| Marketing, Promotion and Evaluation | 153,000 | 50,000 | 203,000 | 4.96 | | | | | | |
| Admin Costs | 60,000 | 60,000 | 120,000 | 2.93 | | | | | | |
| Pilot Projects | 50,000 | 91,000 | 141,000 | 3.45 | | | | | | |
| TOTAL | 2,091,000 | 2,000,000 | 4,091,000 | 100 | X | X | | | | |

Projects and Programs

\$2M Ongoing, General Fund

\$100,000

- Conduct needs and gap analyses of industry and education
- STEM Action Center program evaluation

\$275,000

- K-16 STEM education
- Coordinate workforce needs with K-16 STEM education

\$150,000

- Database creation
- Professional development, competitions, grants, scholarships and resources for educators and workforce

CUMULATIVE TOTAL: \$525,000

Projects and Programs

\$2M Ongoing, General Fund

\$500,000

- Support high-quality STEM professional development
- Support scholarships for STEM education or training

\$250,000

- Support PK12 STEM grants for educators
- Includes resources and curricular materials

\$100,000

- Support community STEM events
- Encourage community engagement and industry involvement

CUMULATIVE TOTAL: \$1,375,000

Projects and Programs

\$2M Ongoing, General Fund

\$250,000

- Intel Science & Engineering Fair (Post-secondary & industry)
- Grant for students

\$250,000

- National competitions
- FIRST Robotics, Invent Idaho, Science Olympiad
- Other competitions

\$125,000

- Engage industry to support mentorship & internship programs
- Create actionable database connecting educators & industry

CUMULATIVE TOTAL: \$2,000,000

Intel Science and Engineering Fair Update

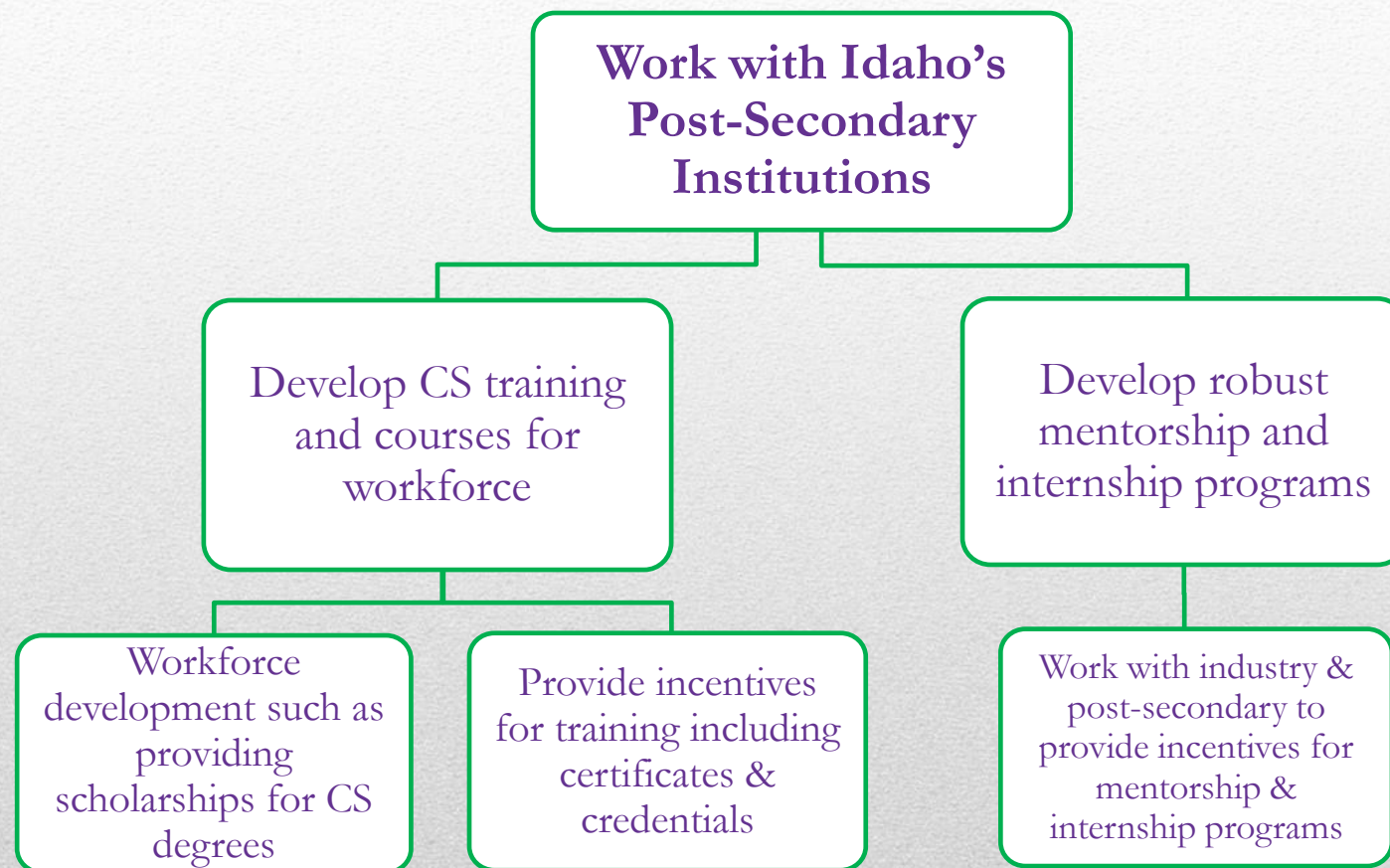
- Will partner with BSU, U of I, ISU this first year (venue and judges)
- We have formed a working group of 12 individuals
 - 9 will be PT contractors: 1PD, 3 Regional Fair directors, 1 university liaison; 1 grants coordinator, 1 website development, 1 volunteer/judges coordinator; 1 mentor organizer
 - PD will occur the first 2 weeks of August in each region; 20-30 educators each with \$3,000 for stipend, travel to PD and student travel to Fair + Fair supplies
- Need to work on industry support
- Need a communications plan (PD invite and grant application and Fair)
- Fair will occur late Feb/early March in each Region
- We will send 3 regional winners to Nationals (9 total)

Collaborate to Support Idaho Educators



TOTAL: \$1M

Collaborate to Support Idaho's Workforce



CUMULATIVE TOTAL: \$2M

Topic Feedback

Ranked in order from SurveyMonkey

- 1) ~~Computer Science & Portal Development – IDLA~~
- 2) Intel Science and Engineering Fair
- 3) Code.org and Computer Science
- 4) ~~Microsoft IT Academy – SDE~~
- 5) ~~Mastery Advancement Program – SDE~~
- 6) STEM Works as model for vetting STEM programs
- 7) FIRST Robotics
- 8) TIPPS Camp (first generation college students)
- 9) KISS Institute for Practical Robotics
- 10) Project Lead the Way
- 11) Million Women Mentors
- 12) NCLB vs ESSA

Public Comment



Upcoming Events

- **Doodle Poll Going out tomorrow –**
 - Early August, 1:00-4:00pm

