HELLO AGAIN!

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What’s New This Month:
We have officially launched our “Community Grants Portal” to make it easier to apply for STEM funding in Idaho!

There are currently three STEM grants open to Idaho educators, and we will be releasing at least five more funding opportunities before the end of 2016-2017.

Learn more about these awesome opportunities and check out more newsworthy STEM items below. Thanks again for taking the time to read our monthly newsletter!

ACTION ITEMS:
1. Create Your Account In Our “Community Grants Portal”
2. Apply For PK12 Innovative STEM Grant
3. Apply For Idaho Science & Engineering Fair Student Project/Travel Grant
4. Apply For FIRST Robotics Program Grant
5. Learn More About Our Upcoming Grants
HOW TO USE OUR NEW “COMMUNITY GRANTS PORTAL”

We have officially launched our “Community Grants Portal” to make it easier to apply for STEM funding! We have created accounts for every school district, public school, and public library (including branches) in the state of Idaho. In order to use our Grants Portal, educators must be associated with one of these accounts. (Rarely will an individual create an account and NOT be associated with an organization).

Create Your Login Account and Find Your Organization Here:

1. Click this link: [https://idahostem.force.com/gms/Grant_PtlRegister](https://idahostem.force.com/gms/Grant_PtlRegister)
2. Enter your First Name, Last Name, Email Address, and then...
3. **Only enter the first few letters of the name of your organization** (school district, public school, or library). For example, if you are an educator at “Nampa Senior High School”, only enter “Nampa” as the name of your organization. This will enable you to select from our official list of organizations. Submitting the full name of your organization will cause errors. See below for a visual reference.
4. Hit “SUBMIT”.
5. Review the listed organizations and choose the correct one. If your organization is not listed, you are able to create a new organization.
6. Hit “CONTINUE”.
7. Choose a Password and click “SUBMIT”!

There you go! You are now able to login, view, and apply for open grants.

**Visual Reference for Steps 3-5:**

DO NOT enter the full name of your organization (school district, public school, library). Enter only the first few letters of the name of your organization to select an official account:
OPEN GRANT OPPORTUNITIES

PK12 Innovative STEM Grant:
This PK12 STEM Grant is available for Idaho educators to apply for funding to improve student understanding and learning experiences in the subjects of science, technology, engineering and mathematics (STEM). Awards will be granted for innovative and creative projects in STEM subjects which are hands-on and/or project-based in nature. These projects should focus on student-centered instruction that is unique to the needs of their students.

Eligibility:
- Educators and administrators from publicly funded formal and informal Idaho educational settings (PreK through Grade 12) can apply.
- Publicly-funded libraries, Boys & Girls Clubs, 4-H Clubs and others are all eligible to apply. Private entities (including parochial) are not eligible to apply.

Application Deadline:
- October 28, 2016 (5:00 pm MST)

Learn More Here: https://stem.idaho.gov/grants/

Idaho Science & Engineering Fair Student Project / Travel Grant:
The STEM Action Center is proud to sponsor regional high school science and engineering fairs for the 2016-2017 school year. Winners of the regional fairs will be eligible to compete in the 2017 Intel International Science & Engineering Fair (Intel ISEF). If selected, the educator will receive up to $2,000 to support participation in their regional fair. Educators will use these funds to purchase classroom materials for student projects and to cover travel costs for the educator and students to attend their regional fair. The amount awarded will be based on the number of student projects approved to participate in the fair. (See website for full details on this process.)

Eligibility:

Application Deadline:
- December 16, 2016

Learn More Here: https://stem.idaho.gov/grants/
UPCOMING GRANT OPPORTUNITIES

Do you know an educator or are you looking for devices to help incorporate coding into your classrooms? Are you interested in hosting a MakerFaire in your community or school, but need funding to make it happen? If so, please check our website and Facebook page frequently as we will be posting numerous opportunities in the coming weeks and months.

These Grant Opportunities Will Be Released Soon:
- Computer Science Devices - up to $10,000
- Mini MakerFaire Support - up to $5,000
- FABSlam 3D Design and Fabrication Workshops & Competition
- Family STEM Awareness & Career Awareness events
- Community Robotics Maker Kits (School, Public and Academic Libraries only)

Learn More Here: https://stem.idaho.gov/grants/

GRANT REVIEWERS NEEDED

The Idaho STEM Action Center is currently looking for new people to review our funding applications. Reviewers are an integral part of the funding process, and help choose the most outstanding and deserving applicants for our various programs.

If you are interested in becoming a reviewer, or if you have any questions about the process, please contact Crispin Gravatt at crispingravatt@gmail.com

STUDENT COMPETITIONS

Breakthrough Junior Challenge:

Educators! Do you know a student between the ages of 13 and 18 that loves STEM, video production or both? The Breakthrough Junior Challenge is offering $400,000 to a student who can create a short video (under 5 minutes) explaining a “big idea” in physics, mathematics, or life sciences. Their film can take any form: animation, talking head, documentary, dramatic reconstruction, whatever.

Learn More Here: https://breakthroughjuniorchallenge.org/
EngineerGirl Essay Contest:
Every year, the EngineerGirl website sponsors an essay contest dealing with engineering and its impact on our world. This year’s essay topic will be “Engineering and Animals” and is available for Grades 3-12.

Learn More Here: http://www.engineergirl.org/10209.aspx

UPCOMING EVENTS

Global Cardboard Challenge:
Inspired by the short film, ‘Caine’s Arcade’, the Global Cardboard Challenge is an annual event presented by the Imagination Foundation to celebrate child creativity and the role communities can play in fostering it. In September, kids of all ages are invited to build anything they can dream up using cardboard, recycled materials and imagination. Then on October 1, 2016, communities come together to play!

Learn More Here: http://imagination.is/our-projects/cardboard-challenge/

ESSA and STEM Education Webinar:
STEMx, NSTA, and the STEM Education Coalition are hosting a webinar on October 5, 2016 about the implications of the Every Student Succeeds Act (ESSA) for STEM education. The webinar is designed to provide critical information to state leaders and STEM professionals about ESSA and its implementation.


STEM RESOURCES

Building STEM Teacher Leadership:
Check out this new online resource focused on STEM Teacher Leadership and funded by the U.S. Department of Education. The Building STEM Teacher Leadership website provides an overview of topics related to building and supporting STEM teacher leadership in K-12 schools. The website addresses a range of topics, such as models of STEM teacher leadership, district and administrator support, evaluation of programs, STEM teacher leader networks, and the role of teacher preparation programs.

Learn More Here: http://stemteacherleadership.org/
Technology Education - STEM Careers:
TechnologyEducation.org provides a searchable database of technology and computer science resources including schools, degrees, programs and career resources.

Learn More Here: http://www.technologyeducation.org/stem-resources

FEATURED ARTICLE
"Defining STEM - Critical, but Not As Easy As You Might Think" by Angela Hemingway

**This is a guest blog post by Angela Hemingway, Executive Director, Idaho STEM Action Center, that was featured recently by Education Commission of the States

As the term STEM has become more widely used, people can recite the words associated with the acronym: Science, Technology, Engineering and Math. However, beyond this seemingly simple definition, various stakeholders often have significantly different conceptions of what STEM actually means in application. To some it’s a very single-subject, segregated expression of disciplines, such as chemistry or biology or engineering. Others describe STEM as the integration of two or more disciplines, such as math and engineering. Still others focus on the need for STEM to mirror professional practices, which often include not only integration of two or more of the STEM fields, but also critical thinking and the ability to solve real-world issues.

However, if one of the goals of STEM education is to prepare young people for careers in STEM occupations, it is absolutely essential that states adopt a definition of STEM on which all stakeholders can agree, and that the definition corresponds with how STEM knowledge and skills are applied in the world of work. To ensure consistency throughout the state when discussing STEM, the Idaho STEM Action Center has adopted a broad, integrated definition of STEM that aligns with the definition used by the Idaho Department of Labor. When educators apply this integrated approach in their classroom, students will ultimately benefit by entering the workforce with the frame of mind and skills they need for success.

Relatively few states, though, have set out to adopt a statewide definition of STEM that is shared by the diverse STEM stakeholders. What led Idaho to embark on this process? Quite simply, after four meetings of the Idaho STEM Action Center Board, it occurred to me that the definitions of “STEM” that our industry and education representatives were using were very different. That is, the education definition was more the “siloed” vision of the STEM disciplines – students study math, or physics, or biology, not necessarily an integration of these subjects. Alternatively, many industries assumed integration of disciplines. In other words, most students taking advanced math in college do not necessarily pursue careers as mathematicians, but as engineers, physicists, etc. who use advanced math to do their jobs. I realized that if our Board’s education and labor representatives were defining “STEM” in different ways, ultimately it would be difficult for us to determine the end goal of our efforts.
I decided to see what research had been done on defining STEM. I reviewed a variety of sources, from education and economics (i.e., jobs and labor reports), from both academic journals and government reports. I knew that doing so would help ensure the Idaho STEM Action Center defined STEM in a way that was not only true to the needs of labor (an integrated STEM approach), but also would differentiated the Center’s work from that of the Idaho Department of Education, which is very focused on specific subjects.

Based on this research, the definition of STEM presented to and approved by the Idaho STEM Action Center board is that STEM is “an integration of two (or more) STEM fields” and that the definition is “broad,” encompassing not only the traditional STEM fields, but also health care and social sciences. This integrative and broad definition mirrors the occupations defined as STEM by Idaho Department of Labor and the requests from employers that STEM graduates integrate STEM disciplines in the workplace and possess the soft skills to succeed.

Having a clear definition of STEM will allow the Center to systematically focus on projects and programs that are truly integrative while also tracking outcomes related to all STEM jobs.