STEM Action Center Board

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As Legislated in Idaho Code (Idaho Code §67-823, §33-1633, and §33-4701)

- Support high-quality STEM and CS professional development for educators
- Distribute grants to students, educators, and communities
- Engage industry to support STEM/CS education outcomes
- Support student STEM and CS competitions
- Support STEM and CS pilot projects
- Serve as a resource center for instructional materials and best practices
- Support traditionally underrepresented population in STEM and CS
- Identify and recognize high quality STEM Schools
- Work well with other agencies and partners!
Connecting STEM education and industry to ensure Idaho’s long-term economic prosperity.

Engineering innovative STEM opportunities for educators, students, communities and industry to build a competitive Idaho workforce and economy.

Idaho STEM Action Center
Facts About Idaho Jobs

Idahoworks.gov has over 22,000 job openings with ~5,000 that are hard-to-fill, open for 90+ days.

Idaho has the fastest population growth, the 3rd fastest job growth, and 2nd fastest tech sector growth.

100% of Idaho industry believe employees should possess both technical and 21st century skills.
More Facts about Idaho Jobs

16 of the 20 fastest growing careers in Idaho require STEM SKILLS.

Idaho’s tech sector is the second fastest growing in the nation at 6.3%.

In Idaho, STEM JOBS are expected to grow 23% by 2024.

Within 20 years, 80% of jobs will require skills in TECHNOLOGY.
WHY STEM?

In 2016, 3,818 STEM JOBS WERE UNFILLED IN IDAHO, resulting in nearly $240 Million of unclaimed personal income.

If these STEM JOBS were filled, state tax revenues would INCREASE BY NEARLY $14 MILLION.

Idaho’s STEM jobs PAY WELL DOUBLE THE MEDIAN WAGE of non-STEM JOBS.

In 2017, 6,000 STEM JOBS WERE UNFILLED IN IDAHO, resulting in nearly $355 Million of unclaimed personal income.

If these STEM JOBS were filled, state tax revenues would INCREASE BY OVER $20 MILLION.
GOAL #1: Coordinate & facilitate implementation of STEM programs throughout Idaho

GOAL #2: Align education and workforce needs throughout Idaho

GOAL #3: Increase awareness of STEM throughout Idaho
21st Century Skill Development

We need critical and creative thinkers, collaborators, innovators, and problem-solvers.

STEM learning builds these skills!
HOW DO WE DO THIS?

• Professional development opportunities
  • Grants to educators, schools, libraries, out-of-school organizations and more
• Student competitions and camp scholarships
GOAL #1: Coordinate & facilitate implementation of STEM programs throughout Idaho

- **Professional Development** - High quality STEM/CS PD (next slide)
- **Grants**: PK12, CS Device, Camps, Competitions, Family/Career STEM Events, and Sponsorships
- **Camp Scholarships**: STEM, CS, and Coding
- **Competitions**: Next slide
- **Awareness Events**: Family Day at the Fair, STEM Matters Day at Capitol, and Hour of Code
Professional Development

- i-STEM Summer Institutes
- FIRST Robotics
- C-STEM
- Code.org PD
- Educurious
- AP and Dual Credit PD
- Virtual Reality PD and resources
- BotBall Robotics PD and Materials
- ISEF PD, travel and materials grant
- Drones PD and Resources
- Making Sense of Science
- Idaho Math and Science Conference PD
- FabSLAM – 3D Fabrication PD and Showcase Events
Student Competitions

- Regional Idaho Science and Engineering Fairs
- FIRST Robotics Expansion Grant & Student Travel Grants
- FabSLAM – 3D Fabrication Middle School Competition
- BotBall Competitions (Regional and International)
- Invent Idaho’s Lead Sponsor
- VEX Robotics
- CTE student competition travel
- Future Cities competition and travel
- Drone Competition
- Science Bowl
- Congressional App Challenge
- Math Counts
GOAL #2: Align education and workforce needs throughout Idaho

- Workforce Development Council, Apprenticeships, Internships, Teacher Externships (summer 2019)
- Project-Based Virtual Mentorship Platform (slide later)

- INDEEDS Award for excellent STEM educators
- Hour of Code, Code.org, and IDLA
- CS Co-Op, Higher Ed and Industry
- CS dual credit training
- Expansion of *IDoCode* CS teacher endorsement
GOAL #3: Increase awareness of STEM throughout Idaho

- **Presentations**: Local, state, and national
- **Interviews** on radio, news, blogs, and magazines
- **Sponsorships of Key Events**: Hispanic Youth Conference, Inspire to Hire, IASA, ISBA, Super Conference, Western Idaho Fair, Gowen Thunder, Lights On Afterschool, etc.

- **Grants**: Family STEM Awareness and Career Awareness
- **National STEMx Board Member**
- **Governor’s Designee** on Workforce Development Council
## Data From Family STEM/Career Awareness Events

### Students
- 36% increase in awareness of STEM careers
- 83% want to study STEM in post-secondary
- 95% say STEM is fun!

### Parents
- 92% believe their community should invest more in STEM
- 99% would like their child to pursue a STEM career
- 98% want their child to have access to a mentor
Virtual, Project-Based, Statewide Mentorship Platform

- Focused on student projects, especially related to competitions
- Industry and higher ed support for educators whose students are working on projects that could benefit from additional outside-the-classroom support
- One of the most powerful tools for retention of students (especially females) in STEM is having a strong mentor
- Available NOW!
- [https://mentorship.stem.idaho.gov/](https://mentorship.stem.idaho.gov/)
NOW OPEN – STEM.Idaho.gov

• Learning Blade – STEM Career Awareness
• ISEF PD and Grant
• Code.org CS PD
ISEF PD and Grant

Idaho Science & Engineering Fair 2018 was a huge success!

Learn all about how to incorporate ISEF projects into your curriculum. CEU available.

Educators can get up to $3,000 to support student projects

Regional trainings:
• NIC: August 6-7
• ISU: August 9-10
• BSU: August 13-14

Idaho Science and Engineering Fairs:
• Northern: March 1 (NIC)
• Eastern: March 8 (ISU)
• Western: March 15 (BSU)
This Summer and Beyond…

• Numerous PD opportunities this summer in both STEM and CS
• Significant support for STEM summer camps
• Check out your local library and Discovery Center of Idaho for resources and STEM AC-sponsored activities for kids!
• Many opportunities will open next spring!
Opening Fall

- i-STEM Strand Provider Applications
- PK12 Innovative STEM Grants
- Device Grants
- Travel grants to Math and Science Teachers Conference in Boise in October
- Student Competition Travel Grants
Opening in Winter

• Family STEM and Career Awareness Events Grants
• Student Competition Scholarships
• Camp and Out-of-School Grant
• Additional projects based on need
Springtime Opportunities

• Competition Season!
  – ISEF, FIRST Robotics, Invent Idaho, Future Cities, Science Olympiad, Math Counts, etc.
  – Possible new competitions: Drones, Hack-a-thon, App Challenges

• Summer PD for educators and camp grant scholarships opportunities open
How do you apply to STEM AC?

• Sign up for a Community Grant Portal Account at STEM.Idaho.gov/grants (or login)
• Most opportunities are competitive so please:
  – Use proper grammar and complete sentences
  – Review the rubric and answer the questions completely
• Please return your required agreements to us *on-time* or you will lose your spot
• Please complete the final report *on-time* or your account will be suspended
• We are going to create webinars to support the online instructions soon!
Resources Portal

- Best Practices for STEM Educators (formal and informal)
- State and National STEM Resources
The Future of i-STEM

• P3 Sponsorship to help fund i-STEM strands

• Any Questions?
Stay Connected!

• Visit our **Website**: [STEM.Idaho.gov](http://STEM.Idaho.gov)
• Like Us on **Facebook**!
• Follow Us On **Twitter** #IdahoSTEMAC
• Sign up for our monthly **e-newsletter**
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