Bi-Annual Idaho EcosySTEM Convening

April 16, 2021
This meeting is being recorded

- This convening is being recorded to provide reference data to develop the Idaho STEM Ecosystem.
- This recording will be kept on STEM AC’s internal servers.
- Public chats will be copied for note-taking purposes.
- Notes and presentations will be posted to the Ecosystem website shortly after the meeting.
A STEM ecosystem provides the structure for cross-sector partnerships to improve STEM literacy, ensuring a strong workforce and global competitiveness for all.
Basic Zoom Tips & Controls

ECOSYSTEM PLANNING MEETINGS
Basic Zoom Controls

The control panel will appear at the bottom of your screen.

Mute/Unmute: This allows you to mute and unmute your microphone.

Start/Stop Video: This allows you to start and stop your own video.

Participants: This opens up your participants window so you can see who is in the meeting.

Chat: This opens up the chat feature. You can only chat with the host(s) for this event.

Share Screen (Enabled for Hosts Only): Click on this icon to start sharing your screen. You will be able to choose an application or a screen you would like to share.

Note: the controls will sometimes auto-hide, so you may have to ‘mouse-over’ the bottom of the screen.
Additional Zoom Controls

Closed Captioning: To enable, click the closed captioning icon and choose “show subtitles”

Reactions: Allows you to ‘react’ using emojis (i.e. thumbs up, raised hand, clap). Any Reactions you choose will show up in your individual picture window. We highly encourage the use of the “Raise Hand” feature when wanting to ask a question.
Additional Zoom Controls

Viewing Options: In the upper right hand corner you can change the layout based on your viewing preference.

- **Speaker View**: Use Speaker View when someone is presenting.
- **Gallery View**: Use Gallery View when you want to see the whole group.
Changing Your Name In Zoom:

1. After launching the Zoom meeting, click on the "Participants" icon at the bottom of the window.

2. In the "Participants" list on the right side of the Zoom window, hover over your name and click on the "Rename" button.

3. Type in the display name you'd like to appear in the meeting and click on "OK".
Breakout Room Controls

Select the Breakout Session Room of your choice. You will be able to enter and leave breakout rooms freely.

Note: Any attendees not joined with the desktop or mobile app (version 5.3.0 or higher) will not be able to self-select a breakout room. The host will need to facilitate moving these participants manually.
Onsite Technical Support During Meetings

Technical Zoom Support: Support moderators will be on hand during the meetings and can be accessed through the chat feature. Look for the moderators with “Zoom Support” in their name.

Have a great event!
Meeting Norms

- We participate as equals with shared responsibility for the outcomes
- We communicate openly, honestly, and respectfully
- We listen as allies
- We stick to the agenda
- We have no hidden disagreements or questions; if we disagree, we do so with grace and tact
- We help each other learn
- We show up on time and prepared
Networking Lunch

12:30 – 2:00pm

Breakout Rooms
Gondwana
Pangea
Laurasia
Share your thoughts & ideas through out the meeting on the Padlet!

https://padlet.com/crispingravatt/8qmu4ywqmht1qzf
ICEBREAKER “WHAT AM I” GAME

• We will show you a series of images
• We will provide a clue with each corresponding image until someone guesses correctly
• The first person to guess the image correctly wins!
• You must submit your answer through the chat (make sure “everyone” is selected)
• Only one answer per person…so choose your answer carefully
This structure was created by husband-and-wife artists Dennis Sullivan and Frances Conklin.
This bed & breakfast guesthouse is located along Route 95
It is home to Toby and Sweet Willy, the World’s Two Biggest Beagles.
<table>
<thead>
<tr>
<th>Intended Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hear</td>
</tr>
<tr>
<td>Review</td>
</tr>
<tr>
<td>Provide</td>
</tr>
<tr>
<td>Learn</td>
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<tr>
<td>Understand</td>
</tr>
<tr>
<td>Provide</td>
</tr>
<tr>
<td>Network</td>
</tr>
</tbody>
</table>

- **Hear**
  - Hear about success stories and regional group work

- **Review**
  - Review needs assessment and insight from interviews and focus groups

- **Provide**
  - Provide guidance on EcosySTEM goals

- **Learn**
  - Learn how to advocate for STEM education and workforce development

- **Understand**
  - Understand the proposed EcosySTEM governance structure

- **Provide**
  - Provide feedback on proposed EcosySTEM governance structure

- **Network**
  - Network with peers during lunch and ‘happy hour’
Idaho EcosySTEM Timeline & Overview

- **Fall 2019**: Initial ecosystem formed, recognized by SLECoP
- **Jan. 2020**: First statewide Idaho EcosySTEM Convening
- **Feb. - Present**: Working groups aligned to strategic priorities meeting regularly
- **May 2020**: Needs Assessment Survey, Interview, and Focus Groups
- **Aug. 2020 - Present**: Received NSF INCLUDES Planning Grant to focus on EcosySTEM goals, metrics, communication, & leadership
- **Sept. & Oct. 2020**: Regional & whole group convening, discussion & next steps
- **Jan. 2021**: Regional planning & working groups formed
- **Feb. 2021**: Leadership committee formed
- **Today**: Whole group convening, discussion & next steps
Why Idaho STEM EcosySTEM?

A group of stakeholders that work together to design and implement a comprehensive vision of STEM learning for all and to further develop clear STEM career pathways for Idaho’s youth through a collective impact.

Together, we will focus on:

• Broadening STEM equity
• Promoting access to, alignment with, and awareness of, STEM education and careers
• Creating successful metrics for STEM education and programming
• Building STEM momentum within the state and nationally
Framing the Goal of the Meeting

What you told us that you hope the Idaho STEM Ecosystem can do for you, your organization, and/or your region

- Networking with other STEM educators and professionals
- Funding for STEM opportunities
- Stronger connections between in and out of school education opportunities
- Stronger connections between PK12 education and higher education/career opportunities
- Discussion and work related to policy and governance
Success Stories!

What are EcosySTEM members working on?
Regional Planning Opportunity Details

- Regionally focused work to plan/develop local ecosystem efforts.

- Regional group work:
  - Identify and/or survey stakeholders in your region;
  - Build stronger partnerships;
  - Establish methods for communication with statewide ecosystem;
  - Develop regional ecosystem sustainability and expansion;
  - Create a leadership structure and governance model;
  - Determine regional STEM goals and outcomes;
  - Identify needs and assets, etc.;
Regional Planning Group Updates
Assessment Update

TIES Focus Groups & Interviews - Preliminary Results
Welcome TIES Leadership!!
Making the Case for STEM Ecosystems in Idaho

Focus Group Review
Idaho Focus Groups

• In February 2021, TIES interviewed STEM leaders across all regions of the state, representing diverse sectors - K-12, early learning, post-secondary education, business, libraries, museums, community based organizations, etc.

• Discussion topics included Idaho’s assets, biggest challenges and observations about how to best support families in regions throughout the state.
“One of my favorite reasons for living here is that no matter which direction I go on a road, I can eventually get to somewhere beautiful.”
Defining Community

**Regions 1 & 2**
- Rural
- Remote
- Agricultural
- Tribal presence
- Strong connections to land
- Mixed industry, largely featuring forestry & agriculture
- Divides

**Regions 3 & 4**
- Statewide/regional-big, diverse population
- Specific industry focus/gov agencies
- Local-peripheral rural communities
- Hispanic populations
- Low SES populations

**Regions 5 & 6**
- Rural
- Remote
- Agricultural
- Hispanic/Indigenous populations
- Socioeconomic divides create/reinforce educational divides
“Idaho Falls is pretty awesome because it is a growing community. A lot of that’s due to upcoming projects at the Idaho National Laboratories.

They’re forecasting about five thousand additional jobs being added between now and 2024.

Some of that is concentrated in the construction area, labor and trades, and then other parts of that might be research. They’re talking about building some mini nuclear reactors out there. We have the Naval Nuclear Reactor in our area. So, there’s some exciting things coming from that area.”
# Resources

## Regions 1 & 2

**Available**
- Specific programs
- Higher education networks

**Missing**
- Funding
- Coordination; Connection between industry & education
- Interest & awareness, especially for families

## Regions 3 & 4

**Available**
- Volunteers
- Funding
- Training Operations
- Venues

**Missing**
- Ongoing Funding
- Staffing
- Resources
- Leadership
- Access & inequity
- Awareness
- Training
- Time

## Regions 5 & 6

**Available**
- Industry Funding support & volunteer expertise
- University student and professional volunteers
- Clubs/extracurriculars

**Missing**
- Leadership
- Additional human power
- Connection & communication strategies
- Funding
Libraries strive to offer STEM programming through the resources available to them.

Increased funding for public libraries will lead to greater STEM education opportunities for students and families.

Idaho’s geography offers an abundance of natural learning opportunities, assuming STEM Ecosystem learning partners are sufficiently funded and are able to structure those opportunities.

Idaho’s stakeholders and industries are willing and enthusiastic partners, and able to provide the resources needed to improve STEM education in community ecosystems if given opportunities to do so.
“We need more passionate people, and for them to have more resources and more prominence in their communities, so that people are listening to the...people that really make up a majority of the state.”
Strongest STEM supporters or implementers in your community

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry</td>
<td>33%</td>
</tr>
<tr>
<td>Higher ed</td>
<td>17%</td>
</tr>
<tr>
<td>STEM AC</td>
<td>8%</td>
</tr>
<tr>
<td>OoS</td>
<td>19%</td>
</tr>
<tr>
<td>School</td>
<td>14%</td>
</tr>
<tr>
<td>Other</td>
<td>3%</td>
</tr>
<tr>
<td>Govt</td>
<td>5%</td>
</tr>
</tbody>
</table>
“We want a STEM trajectory, but tailored to Idaho to keep kids in Idaho, to keep our jobs in Idaho, to grow and expand local industry and tech in Idaho.”
<table>
<thead>
<tr>
<th>My community knows what STEM <strong>means.</strong></th>
<th>My community shows <strong>interest</strong> in STEM.</th>
<th>My community <strong>values</strong> STEM skills.</th>
<th>STEM <strong>careers</strong> are available in my community.</th>
<th>My community understands that STEM is important to its <strong>long-term</strong> economic health and prosperity.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.90</td>
<td>3.91</td>
<td>4.02</td>
<td>4.01</td>
<td>3.58</td>
</tr>
<tr>
<td>78.01% (-0.84)</td>
<td>78.28% (-1.91)</td>
<td>80.40% (-1.33)</td>
<td>80.13% (+0.51)</td>
<td>71.60% (-1.80)</td>
</tr>
<tr>
<td>0.88</td>
<td>0.85</td>
<td>0.88</td>
<td>0.92</td>
<td>0.95</td>
</tr>
</tbody>
</table>
What are the biggest assets in your community?
Challenges to Improving STEM Education

Lack of reliable broadband Internet access, lack of technology, and challenges for using technology hinder STEM education advancement. This heavily impacts Latino and Native American families as well as those in rural areas and this, in turn, perpetuates inequities across race, ethnicity and socioeconomic status.

The lack of reliable transportation in marginalized, remote, and rural communities is a significant barrier to accessing STEM education opportunities.

Some cultural barriers and misunderstandings have provided some challenges on determining the best way to measure impact and allocate funding throughout the state.
<table>
<thead>
<tr>
<th>My community has available <strong>infrastructure</strong> to support STEM opportunities.</th>
<th>My community has <strong>technology</strong> available to support STEM opportunities.</th>
<th>My community has <strong>funding</strong> available to support STEM opportunities.</th>
<th>My community has <strong>human power</strong> available to support STEM opportunities.</th>
<th>My community has <strong>leadership</strong> available to support STEM opportunities.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.52</td>
<td>3.51</td>
<td>3.17</td>
<td>3.57</td>
<td>3.66</td>
</tr>
<tr>
<td>70.33% (-0.25)</td>
<td>70.20% (-0.67)</td>
<td>63.36% (-1.35)</td>
<td>71.39% (-0.73)</td>
<td>73.20% (-1.36)</td>
</tr>
<tr>
<td>0.98</td>
<td>0.94</td>
<td>1.06</td>
<td>0.92</td>
<td>0.90</td>
</tr>
</tbody>
</table>
“The disparity and privilege are on top of each other. We’re all intermixed. There are profound disparities within the same ecosystem. My kids have to work twice as hard to get half as far. We’re not so far apart, but we are.”
## Barriers to Success

<table>
<thead>
<tr>
<th>Regions 1 &amp; 2</th>
<th>Regions 3 &amp; 4</th>
<th>Regions 5 &amp; 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funding</td>
<td>Lack of funding</td>
<td>Barriers to participation (transportation, language, registration, fees, etc.)</td>
</tr>
<tr>
<td>Cultural barriers</td>
<td>Lack of equitable access</td>
<td>Cultural attitudes toward STEM</td>
</tr>
<tr>
<td>Lack of devices/tech support</td>
<td>COVID-19</td>
<td>Lack of time</td>
</tr>
<tr>
<td></td>
<td>Lack of awareness/outreach needed</td>
<td>Policies</td>
</tr>
<tr>
<td></td>
<td></td>
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</tbody>
</table>
“The go-on rates need to be much improved, and not just academic institutions, but trade schools and any post-secondary. How can we get more of our students to explore those avenues?

And then the lack of preschool opportunities in the state is another big barrier, little funding and so few resources in so many of our communities that would greatly benefit so many Idaho kids.”
What is one solution to a barrier that would impact your region the most?
Idaho STEM Ecosystem Report

• Data from these focus groups will be compiled in a larger report about STEM in Idaho.

• If you are interested in adding your voice to the report, please complete this brief form.
Federal Report

• Idaho is one of 94 STEM Learning Ecosystems located across the globe to participate in Town Hall Meetings in January.

• The Town Halls resulted in a report for the Biden-Harris administration highlighting six recommendations of how to support STEM. The report can be found here.
Thank you!
Guiding Aspirational Statement

The Idaho EcosySTEM fosters the integration of STEM experiences for Idahoans, creating problem-solvers and critical thinkers who will sustain and lead our economy.
|   | Educator Preparation, Training & Support –  
|   | Focusing on finding new and better ways to prepare and support PreK-20 educators in STEM education. Building a database of available professional development opportunities for formal and informal educators in Idaho and working on developing materials to showcase the value of implementing STEM education in all disciplines.  
|   | Career Pathways & Exposure – Focusing on further developing clear STEM career pathways for Idaho’s youth. Building a database of resources to broaden awareness and assist in career pathways and exposure. The intent is to share the database with the larger asset mapping project.  
|   | Outreach & Communications – Focused on external communication mechanisms. Provides guidance and insight on newsletter and website as primary mechanism for communication to partners. Provided feedback bright spots to highlight members. Reviewed and provided guidance on survey data.  
|   | Access and Equity – Recently completed an educator survey to develop “persona mapping” of underserved student populations. Launching survey shortly and will share out results. Our goal is to identify barriers to access and develop strategies to overcome. |
Next Steps for Ecosystem Goals

- What’s missing?
- What clarification is needed?
- What fine tuning of the goals are needed?
- How are the strategic priority working groups?

Add your comments and questions to the Padlet!
Break

See you in 5 minutes!

https://stem.idaho.gov/resources-portals/online-pd-resources/
Ideas for Feedback

From your input at the fall meetings and educator listening sessions
Would you participate in regional meetings related to STEM education, workforce, and other STEM topics in your region?

STEM AC may be able to support regional efforts to connect stakeholders in education, industry, government, out-of-school, and other organizations and individuals for conversations about STEM education, economy, and workforce development.
Would you utilize a directory of STEM organizations in the state of Idaho?

STEM AC may be able to create and maintain a directory of organizations and individuals dedicated to supporting STEM education in Idaho. Directory may be print or virtual, and may include primary contact names, emails, phone numbers, organization mission, and other details as available.
Should we invite parents and/or student organizations to be a part of the decision making and strategic planning groups for the Idaho STEM Ecosystem initiative?

What are the best ways they could be involved?
Other Ideas from September Regional Meetings

- Need more rural data: awareness, knowledge, resources, programs, etc.
- Need to include resource management agencies/organizations (F&G, USFS, BLM, etc.)
- Should include indigenous ways of knowing as related to STEM
- Consider hosting an ecosystem-wide equity training
- Regional “techies” to support families
- Regular networking opportunities
EcosySTEM Commitments

Commitments are **specific** and **measurable** actions taken by community stakeholders in support of achieving the EcosySTEM aspiration. Commitments can be large or small and do not necessarily require large investments or funding.

For our EcosySTEM, a commitment may fall into one or more of these categories:

<table>
<thead>
<tr>
<th>Education</th>
<th>Partnerships</th>
<th>Equity</th>
<th>EcosySTEM Infrastructure</th>
</tr>
</thead>
</table>
Why EcosySTEM Commitments Matter

Help demonstrate our collective work for state leadership, for grants, and to potential donors.

Submit your organizations commitment to Erica.Compton@STEM.Idaho.gov

Commitments are publicly available on the EcosySTEM website.
EcosySTEM Commitment Categories & Examples

**Education**

How will your organization support the EcosySTEM’s aspiration?

Ex 1: We will host/sponsor three camps on coding for a total of 100 girls during the summer of 2021.

Ex 2: We will provide a total of 100 hours for employees to volunteer as mentors or guest speakers in local schools.

Ex 3: We will increase the number of undeserved students in STEM education by 15% in 2021.
Partnerships

How will your organization develop new, or enhance existing, collaborative opportunities in your community, region, or the state?

Ex 1: We will develop a partnership with a local STEM business to provide classroom mentors for 10 elementary educators.

Ex 2: We will continue to partner with five school districts to implement STEM specific initiatives, impacting over 3000 elementary students by summer 2021.
EcosySTEM Commitment
Categories & Examples

**Equity** - How will your organization work to close the gaps that exist in STEM education and workforce development?

Ex 1: We will increase the number of undeserved students in STEM education by 15% in 2021.

Ex 2: We will offer community engagement activities for families in three rural communities in spring of 2021 that will impact 95 elementary students.
EcosySTEM Commitment Categories & Examples

**EcosySTEM Infrastructure**

How will your organization support the governing structure development of the Idaho STEM EcosySTEM?

| Ex 1: A representative from our organization will serve on the EcosySTEM leadership board for one year. | Ex 2: We will host an EcosySTEM convening in spring 2021. |
Welcome James Brown!!

• Executive Director, STEM Education Coalition
• Raise awareness at every level about the critical role that STEM education plays in enabling the U.S. to remain the economic and technological leader of the global marketplace of the 21st century.
Happy Hour Topical Sessions

Pick your top three and we will choose the top 5 for the happy hour breakout rooms

- Advocacy
- Access & Equity
- Fundraising
- New Partner Recruitment Strategies
- Summer Programming & Re-Opening Plans
- Impact Data
- Promising Practices in STEM Programming
- Industry and STEM Education
- Apprenticeships, Internships, Job Training
- Other
Caliper Survey

https://www.surveymonkey.com/r/9J385B5
Networking Lunch

Join a Room!
Breakout Room Controls

Select the Breakout Session Room of your choice. You will be able to enter and leave breakout rooms freely.

Note: Any attendees not joined with the desktop or mobile app (version 5.3.0 or higher) will not be able to self-select a breakout room. The host will need to facilitate moving these participants manually.
End of morning session

Reminder that we will come back together at 2pm MT/1pm PT