



**Idaho
Out-of-School
Network**



TMC Works
STEM Ambassador Orientation



Mission:

The Idaho Out-of-School Network's (ION) mission is to build, advocate for, and lead a strong out-of-school community. ION provides tools and resources to increase access to quality youth programs.

Vision:

Every Idaho child has an opportunity to learn and thrive through participation in a high quality out-of-school program.



Think Make Create

LABS

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Why is STEM
important?

The State of America's Workforce



UNITED STATES

40%

of U.S. companies report difficulty in filling positions because of a lack of STEM skills.¹

INTERNATIONAL

\$2.5 Trillion

The U.S. would gain an extra \$2.5 trillion in Gross Domestic Product between now and 2050 if its students scored at the international average on math and science tests.²

27%

of the new high-skills jobs related to agriculture that will be created in the next five years will require a STEM education.³

86%

of engineers and 74 percent of computer professionals are men.⁴

14%

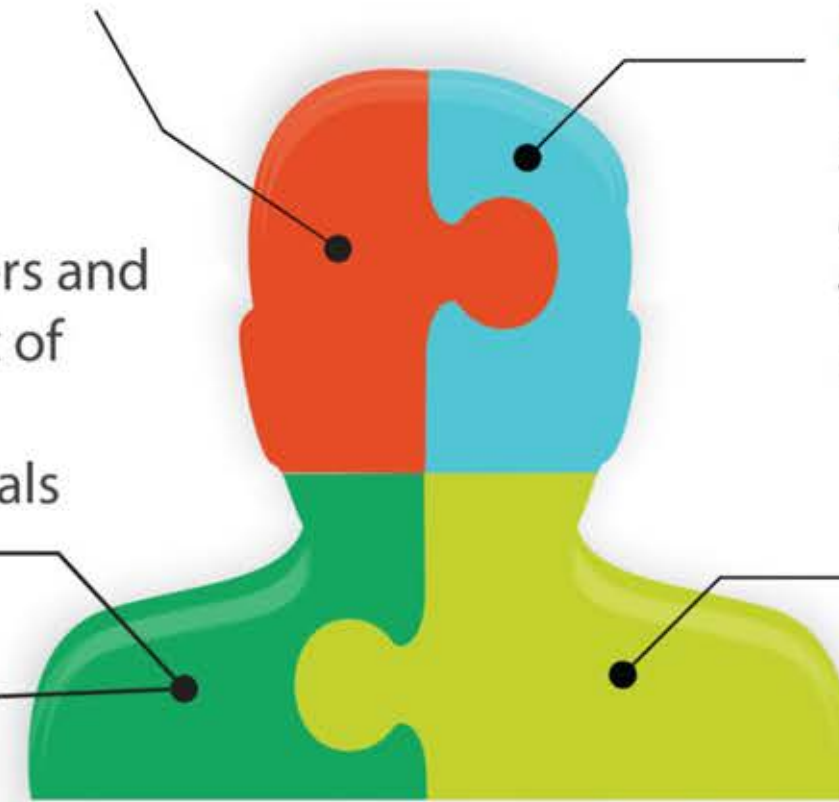
of the engineering workforce is made up of women.⁴

21%

STEM employees earn 21% more than individuals in non-STEM fields.⁵

10%

Underrepresented minorities hold only 10% of science and engineering jobs despite making up over a quarter of the U.S. population age 21 and older.⁶



Sources:

1. Brookings Institution, Still Searching: Job Vacancies and STEM Skills, 2014

2. Washington Center for Equitable Growth, January 2015

3. <https://www.purdue.edu/usda/employment/wp-content/uploads/2015/04/2-Page-USDA-Employ.pdf>

4. CTEq analysis of U.S. Census Bureau report on STEM college graduates, 2014

5. Brookings Institution, Still Searching: Job Vacancies and STEM Skills, 2014

6. National Science Foundation, Science & Engineering Indicators, 2013

80%



For students in elementary through high school, more than 80% of their time is spent learning outside of school at afterschool and summer programs, in libraries, museums, science centers, or at home or in the community.

15%



Female scientists and engineers are concentrated in different occupations than are men, with relatively high shares of women in the social sciences (62%) and biological, agricultural, and environmental life sciences (48%) and relatively low shares in engineering (15%) and computer and mathematical sciences (25%).

3%



Women make up half of the total U.S. college-educated workforce, but less than one third of the science and engineering workforce. Latinx and African-American women make up less than 3%.



STEM teaches “soft” skills

- A.k.a. durable or 21st century skills
- Employers have trouble filling jobs due to the “soft skills” gap
- Major in-demand skills of tomorrow are the Four C's:
 - Communication
 - Collaboration
 - Creativity
 - Critical thinking
- Youth learn widely-applicable problem-solving through inquiry.

Challenges to STEM Education

The following reasons were the same if STEM was offered in afterschool programs or not:

- ✓ Do not have **funding** for STEM curriculum
- ✓ Do not have qualified **staff**
- ✓ Do not have **time** for a STEM program
- ✓ Do not know of an appropriate STEM **curriculum**

Idaho Out-of-School Network Survey, June 2018

Jocelyn Cullers, Boise State University Institute for STEM & Diversity Initiatives



Idaho's TMC Leadership Team



Anna Almerico
Program Director

Amy Post
TMC Labs Coordinator



Claire Sponseller
Area Extension Educator, 4-H STEM



Andrea Baerwald
Science & ISAS Coordinator





TMC LABS

- TMC Leadership Team successfully launched the first 16 labs in May 2021.
- 28 TMC Labs on the road in 2023, plus 2 TMC Unhitched site
- More than 70,000 youth have used the labs so far.
- Each month, approximately 1,000 kids use TMC Labs.



TMC Lab Locations



- | | |
|---|--|
| 1. UI Extension 4-H Youth Development | 14. Gooding Public Library |
| 2. UI Extension in Bingham County | 15. UI Extension in Boundary County |
| 3. Boys & Girls Clubs of Magic Valley | 16. UI Extension in Bear Lake County |
| 4. Treasure Valley Family YMCA | 17. Boys & Girls Club of Ada County |
| 5. Nampa School District | 18. Boys & Girls Club Ada County |
| 6. Boys & Girls Club of Western Treasure Valley | 19. Boys & Girls Clubs of Magic Valley |
| 7. Children's Museum of the Magic Valley | 20. Pinehurst After School Solutions |
| 8. UI Extension in Schitsu'umsh Reservation | 21. United Way of Idaho Falls and Bonneville County |
| 9. Boys & Girls Clubs of Lewis-Clark Valley | 22. Boys & Girls Club of the Shoshone-Bannock Tribes |
| 10. UI Extension in Nez Perce Reservation | 23. United Way of Southeastern Idaho |
| 11. Moscow School District | 24. One Stone |
| 12. UI Extension in Lemhi County | 25. Mountain View School District |
| 13. East Bonner County Library District | 26. Treasure Valley Family YMCA |
| | 27. Boys and Girls Club of Canyon County |
| | 28. Parma Learning Center |
| | U1. BSU OnRamp |



What is TMC Labs?



STEM Labs in trailers



What is TMC Labs?



STEM activities

What is TMC Labs?



Educator Training



TMC LABS



➤ GOAL 1

Expand access to STEM learning and skills to ALL youth.

➤ GOAL 2

Train educators to provide hands-on STEM learning to youth.

➤ GOAL 3

Increase communities' support of STEM learning and support Idaho's workforce development.

WORKFORCE DEVELOPMENT TRAINING FUND:

Funding Source: Idaho WDC

Innovation Grants fund local workforce development projects, providing skills training and career connections to address employer-identified skill gaps and promote economic mobility, job creation, and innovation.



TMC WORKS!



➤ GOAL 1

Support STEM programming at out-of-school time employers.

➤ GOAL 2

Increase STEM job skills of 250 teenage and adult workers.

➤ GOAL 3

Increase STEM-readiness of the overall Idaho workforce.

STEM AMBASSADORS WILL...

- 20 hours of training
- 80 placement hours
- Earn \$750
- Learn STEM by teaching STEM to younger children
- Contribute to STEM program at your facility
- Develop workplace skills
- Explore future career options
- Optional: visit a STEM workplace
- Be able to enroll in apprenticeships (e.g. learning development professional)
- Optional: participate in the Youth Council



STEM Worksite/School Visit

Ambassadors will...

- Explore an area of interest
- See what a worksite looks like
- Learn steps for entering that workplace
- Meet people at the worksite

Do this by:

- Setting up a tour at a STEM employers
- Visit a STEM program at a higher-education institution
- Interview a STEM professional and learn about their career



Search for people

Search input field containing "Micron"

Search by location

Location search input field with placeholder "Type and select a location"

More filters · 1

Clear all filters

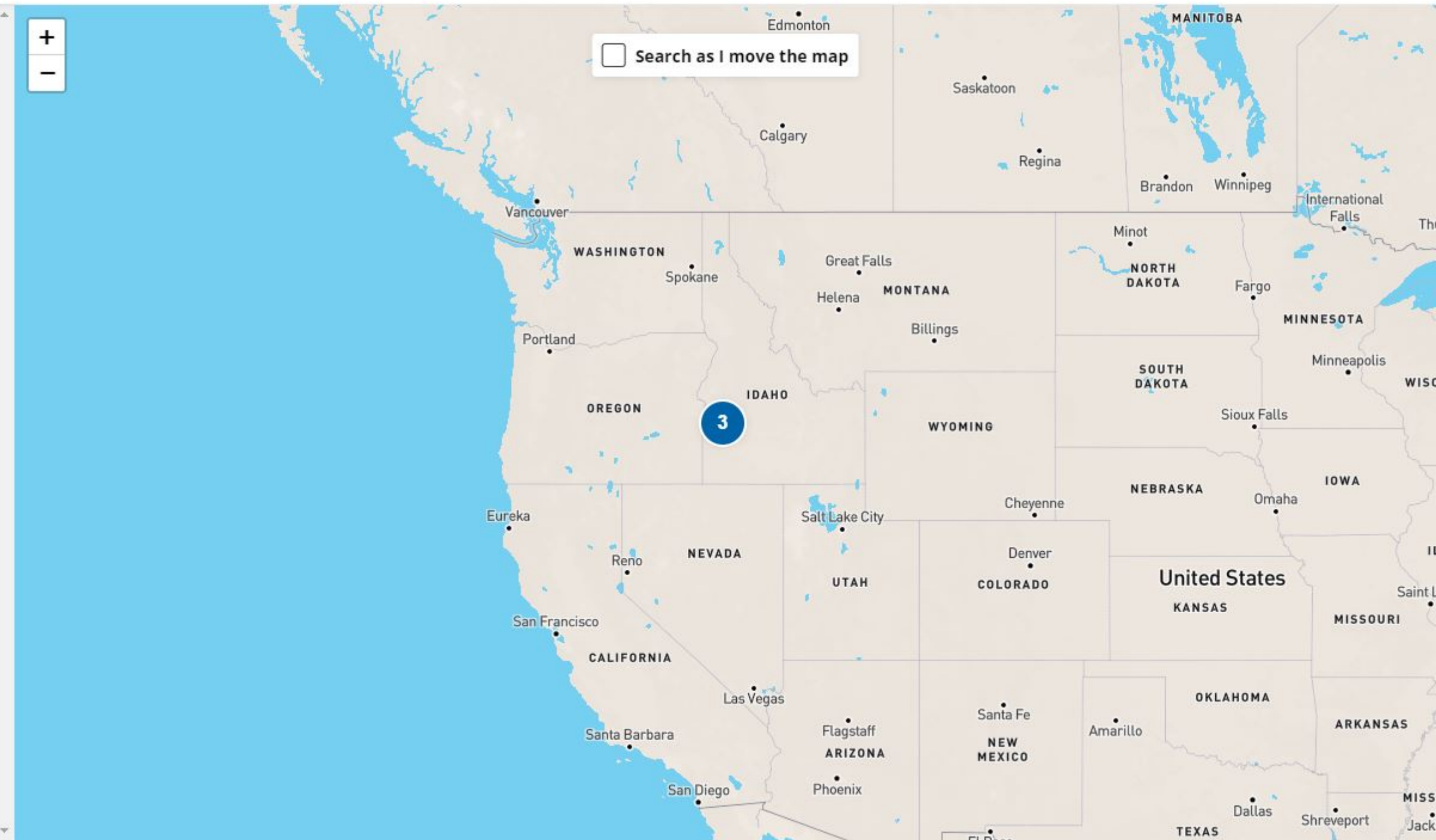
Users (3)

Show map: [checked] Sort by: Recently active

 **Maya Duratovic**
Boise, ID, United States
Administrator at Boise State University in the Micron School of Materials Science an...

 **Raj Bansal**
Eagle, ID, United States

 **Cathy Ammirati**
Boise, ID, United States



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STEM Ambassador - *To Do List*

Earn
\$750

1. Submit Tax ID# to Site Administrator
2. Sign up for ION's Learning Academy
3. Enroll in "STEM Ambassador Training (TMC Works)" on the Learning Academy
4. Fill out TMC Works Participant Registration Form (Step 1 of "STEM Ambassador Training (TMC Works)")
5. Complete first 7 steps of "STEM Ambassador Training (TMC Works)"
6. Attend 3-hour live training with STEM Supervisor within first few weeks

1. Complete 80 placement hours: plan, prepare, lead STEM activities with children
2. Complete TMC User Reports after STEM activities
3. Complete Steps 8 through 11 in online training
4. Complete and document 20 total training hours, including in-person and non-Learning Academy trainings
5. Optional:
 - STEM Activity Facilitation Reflection
 - Visit a STEM workplace or higher-education program to explore future careers

1. Finish submitting user reports
2. Document all training
3. Complete end-of-program survey
4. Receive stipend

All resources linked at idahooutofschool.org/tmc-works

PROGRAM START

COHORT DURATION

END OF COHORT

COHORT	Summer 2024: 6/15.....	June - August.....	8/31/24
	Fall 2024: 9/1.....	September - December.....	12/25/24
	Spring 2025: 1/1.....	January - May.....	5/31/25
	Summer 2025: 5/15.....	May - August.....	8/25/25
	Fall 2025: 9/1.....	September - December.....	12/25/25



STEM Supervisor - *To Do List*

Earn
\$750

1. Provide Tax ID# to Site Administrator
2. Register for ION's Learning Academy
3. Enroll in "STEM Supervisor Training (TMC Works)" on the Learning Academy
4. Fill out TMC Works Participant Registration Form (Step 1 of "STEM Supervisor Training")
5. Complete the first 8 steps of online training
6. Attend 4-hour in-person training with ION
7. Lead 3-hour live training with STEM Ambassadors within the first few weeks

1. Coordinate, mentor and coach STEM Ambassadors
2. Supervise and assist with STEM activity sessions
3. Submit TMC User Reports for all STEM activities (from you and your STEM Ambassadors)
4. Buy STEM materials for Ambassadors and submit receipts to Site Administrator
5. Complete and document 20 total training hours, including in-person and non-Learning Academy trainings. Ensure Ambassadors do the same.
6. Complete 80 placement hours.

1. Finish submitting user reports
2. Document all training
3. Complete end-of-program survey
4. Receive stipend

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Site Administrator - *To Do List*

1. Review and sign your TMC Works contract
2. Attend Site Administrator Orientation
3. Recruit STEM Supervisors at your site
4. Collect STEM Supervisors' Tax ID#s
5. Submit Tax ID#s to ID Dept. of Labor portal
6. Email ION the names of Tax ID#s submitted
7. Coordinate in-person training with ION
8. Assign "STEM Supervisor Training" in ION's Learning Academy to STEM Supervisors
9. Ensure Supervisors immediately complete Step 1 (TMC Works Participant Registration Form) of "STEM Supervisor Training"

1. Track hours for STEM Supervisors and Ambassadors
2. Buy STEM materials & track receipts with Receipt Ledger form
3. Ensure Supervisors submit training records (online and in-person) and user reports
4. Check-in meeting with ION
5. Submit remaining Ambassadors and Supervisors' Tax ID#s
6. Assign post-program surveys to STEM Ambassadors & Supervisors near the end of their 100 hours

1. Ensure all participants have 20 hours of training documented in Learning Academy accounts
2. Ensure Supervisors have submitted TMC user reports for all STEM activities
3. Email ION with names of participants. Indicate if they have completed, dropped out or remain active in the program
4. Complete Site Administrator post-program survey
5. Pay out stipends and save documentation
6. Submit Invoice, stipend documentation and receipt ledger to ION for reimbursement

All resources linked at idahooutofschool.org/tmc-works

PROGRAM START

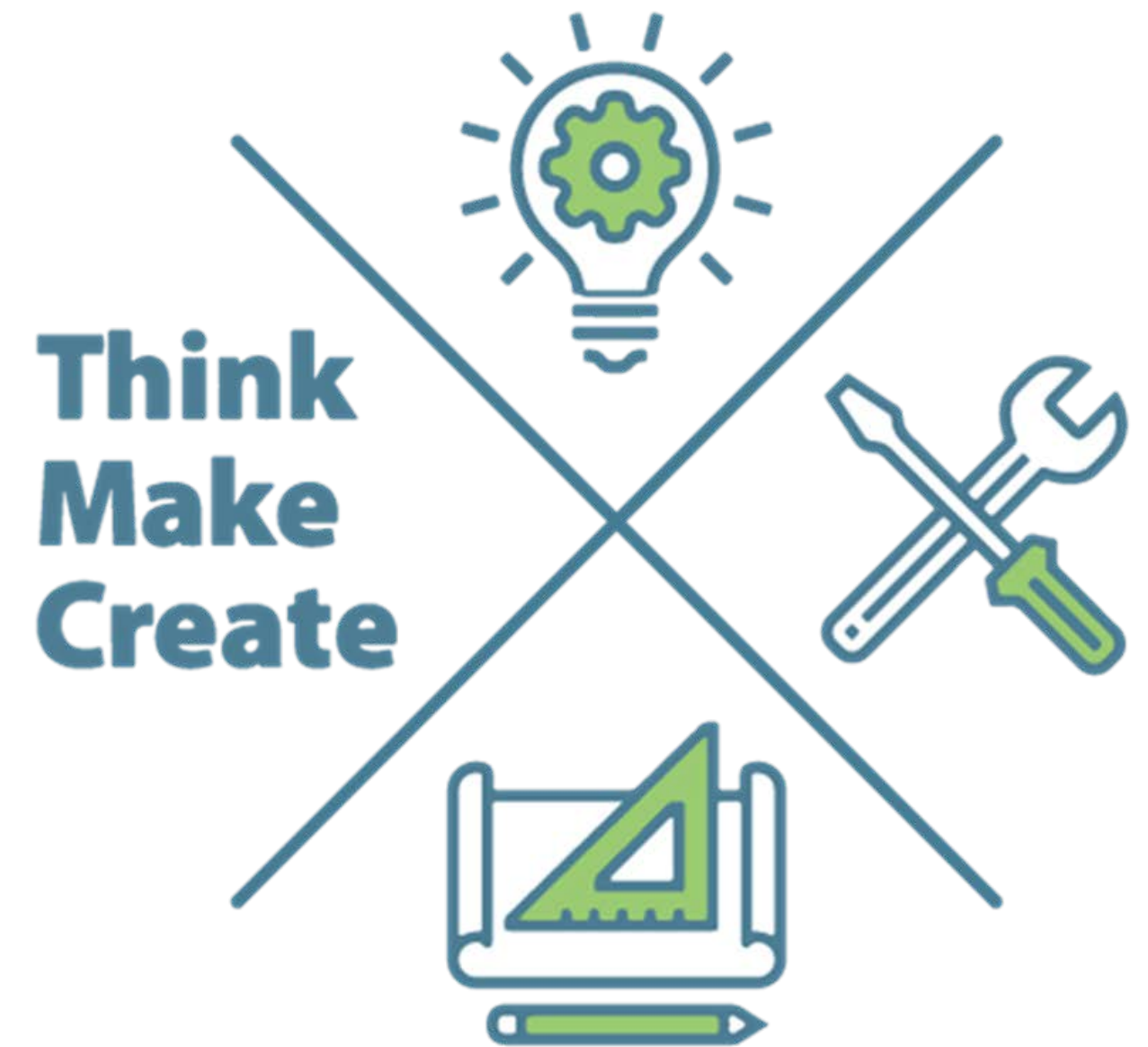
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Next Steps:

- Complete the first 7 steps of STEM Ambassador Training
- Submit your Tax ID number to your site administrator
- Schedule the 3-hour live training with your STEM Supervisor



WORKS

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Think



Make



Create

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Thank You