

# A Moment of Science from ISTA

Idaho Science Teaching Association President's Newsletter

December 2023



## **A Word (or two) From Your ISTA President!**

I hope this message finds you well and thriving in your mission to inspire the next generation of scientists and innovators. As we navigate the ever-evolving landscape of education, it is crucial that we continue to find creative and engaging ways to instill a love for science in our students. Today, I want to share with you a unique approach to fostering excitement about science—through the use of toys.

Toys are more than just playthings; they are tools that can spark curiosity, encourage exploration, and make complex scientific concepts come alive. By integrating toys into our teaching methods, we have the opportunity to transform our classrooms into dynamic and interactive spaces where learning becomes an adventure.

Here are a few ideas on how we can leverage toys to inspire a genuine passion for science:

**Hands-On Exploration:** Introduce toys that allow students to engage in hands-on exploration. Whether it's building a simple circuit with snap-together components or experimenting with gravity using marble runs, these activities not only make learning fun but also provide a tangible understanding of scientific principles.

**Inquiry-Based Learning:** Encourage students to ask questions and seek answers through toys that promote inquiry-based learning. Scientific toys such as microscopes, telescopes, or even simple magnifying glasses can open up new worlds and stimulate a sense of wonder about the natural world.

**STEM Kits and Robotics:** Explore the world of STEM kits and robotics to introduce students to the excitement of technology and engineering. Building robots, programming them to perform tasks, and witnessing the real-world application of coding principles can ignite a lasting interest in these fields.

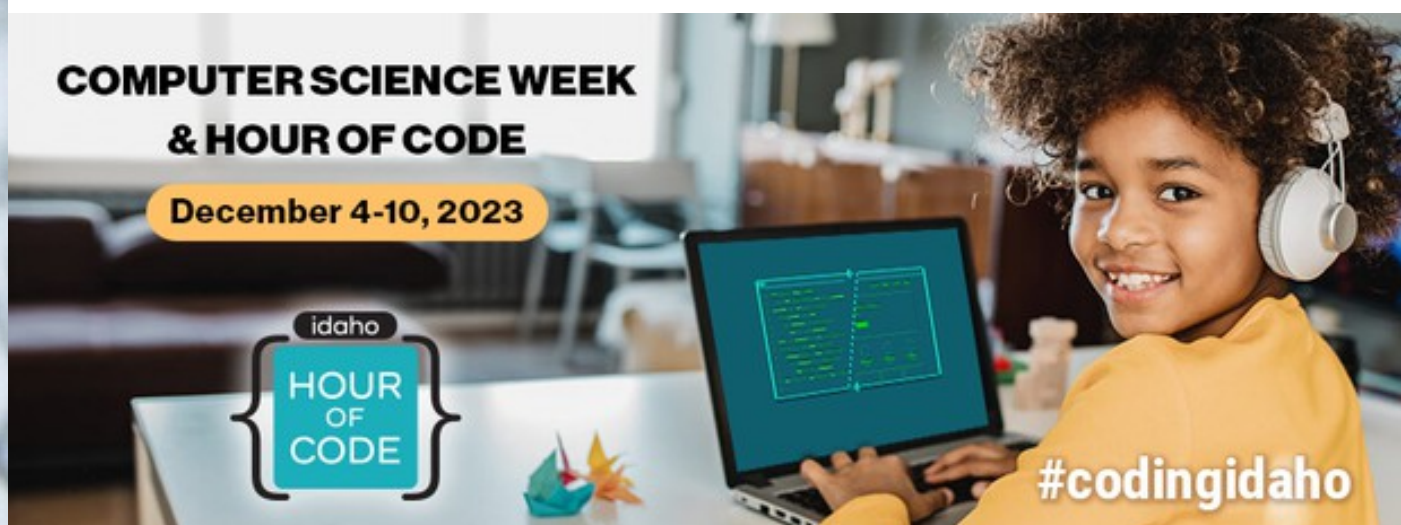
**Nature Exploration Tools:** Equip your students with tools for exploring the great outdoors. Binoculars, insect magnifiers, or soil testing kits can turn a regular science class into an adventure, fostering a connection between students and the environment.

**Science Toy Challenges:** Organize science toy challenges or competitions that encourage creativity and problem-solving. Whether it's designing a Rube Goldberg machine or building a structure with specific materials, these challenges promote teamwork and critical thinking skills.

By incorporating toys into our teaching methods, we have the power to transform the way our students perceive science. Let's create an educational environment where the joy of discovery is as important as the knowledge gained. Together, we can inspire a new generation of scientists who approach learning with enthusiasm and a sense of wonder.



Thank you for your dedication to science education in Idaho. I am excited to see the innovative ways in which you integrate toys into your classrooms and inspire a lifelong love for science.


Warm regards,  
Tanya Elmer  
President  
Idaho Science Teachers Association



## Hour of Code


Save the date! Plan an Hour of Code event for your classroom or volunteer to help students learn a love of computer science this year. Learn more and sign up today at the Idaho STEM Action Center's [Hour of Code website!](#)

 **Beginning November 7th-9th** 




## Crosscutting Concepts BOOK STUDY

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Want to learn how to support students in thinking about science in constructive ways and making sense of phenomenon?

Join the Idaho Science Teaching Association in reading **Crosscutting Concepts: Strengthening Science and Engineering Learning** by Jeff Nordine.

- Hosted by the Idaho Science Teaching Association and the Idaho Department of Education
- FREE for all ISTA members! \$20 for non-members
- Monthly meetings November - April
- Meetings offered on Tuesday (elementary focus), Wednesday (middle school focus), and Thursday (high school) evenings at 6 PM Pacific Time / 7 PM Mountain Time. Pick the evening that works best for your schedule. To see a list of days and times click here: [CCC Playlist](#)
- PD credit available through Northwest Nazarene University 

**For more information and to register, visit:**  
<https://bit.ly/IdahoCCCbookstudy>

### Cross Cutting Concepts: A Book Study

One of our goals in our strategic plan involves increasing our professional development opportunities for members in our state. We have formed a partnership with the State Department of Education to provide a free book from the NSTA Press on how to use cross cutting concepts and sense making to increase student understanding in a science classroom to our members. All of you who attended our fall conference have already received your copy of the book. Consider joining us this fall for a book study and earn some PD credit from CSI for being a part of conversations with other science educators from our state!

For more information on the book study Playlist, click [HERE](#).

To register for the book study, click [HERE](#).

# i-STEM 2024 Call for **STRAND INSTRUCTORS**



To empower Idaho educators to gain STEM content knowledge, pedagogical skills, and build local communities of learning to increase student excitement for and interest in STEM. Apply to be a strand instructor at i-STEM 2024! We are looking for passionate leaders to teach 4-day strands (workshops) at the i-STEM institutes. Institutes take place in June at six locations across the state.

The application will be open November 17-December 15, 2023.

## **i-STEM Call for Strand Instructors**

Calling all STEM enthusiasts! Share your knowledge and empower Idaho educators at i-STEM 2024 through the [@idahostemac](https://twitter.com/idahostemac)! Apply now to become a strand instructor and inspire the next generation of innovators.

Access the application here: <https://stem.idaho.gov/apply/i-stem/strand-provider/>

## **Space Grant Funding Request**

Need help funding your team's participation in the Plant the Moon/Mars Challenge?



We are proud to partner with NASA Space Grant Consortiums in various states to support prospective teams in funding their projects. If you and your team reside in one of the supported states, you can apply for Space Grant support from your respective state.

For the Spring 2024 Season, the following states will be accepting applications: AZ, CA, GA, ID, IL, IN, MA, MI, MN, MO, ND, RI.

Spring 2024 applications close December 3.

[Apply Now](#)

## Plant The Moon Challenge Funding

The Plant the Moon Challenge is for anyone daring enough to explore and stretch the limits of human possibility. We're piggybacking off of NASA's new lunar exploration program, Artemis, and giving YOU the chance to help get astronauts back to the moon.

NASA's Artemis Program is the United States' new initiative to return to the Moon. And future missions to the Moon will prepare astronauts for manned exploration of Mars! Artemis will explore more of the lunar surface than ever before. However, returning humans to the Moon and planning to go to Mars is challenging in many ways. One of those challenges is how to feed your crew. Using local resources on the Moon could greatly enhance our capabilities to explore our celestial neighborhood.

This begs us to ask the question, can you plant the Moon? Can we plant Mars? Can you grow crops in lunar regolith, a fine grained dusty covering of rocks and minerals spread across the surface of the moon? Can we grow food sustainably on the surface of Mars? What nutrients, fertilizers, or other modifications to the regolith are needed to grow nutrient rich, sustainable food sources for future astronauts?

Understanding how we can use lunar soil to grow crops is one of the next great steps in supporting our return to the Moon! Through the Plant the Moon and Plant Mars Challenge, you can help NASA scientists and the academic community at large learn the best crop conditions to make this happen. [Register today](#) to get started!

Idaho's Space Grant Consortium offers grants to cover the cost of participating but the application for that funding closes soon! [Check it out!!](#)

**STATE-WIDE  
VIRTUAL LEARNING COMMUNITY**

Nov. 15th  
**KICK-OFF  
MEETING**  
6:30 PM - 7:30 PM MT

**ISEU**  
IDaho SCIENCE EDUCATORS UNITE

**Raffle Prizes  
& Drawings**  
Must be present via  
Zoom to WIN!

MONTHLY  
MEETINGS

PD SNIPPETS

TEACHING  
STRATEGIES

COLLABORATION

SENSE-MAKING

Hosted by  
Idaho Science Coaches  
Sara Tolman and Edmond Walsh

Join via this Zoom Link

## State-Wide Virtual Learning Community with Idaho Science Coaches

New professional development and community building opportunity for Idaho Science Educators! Hosted by [Idaho Science Coaches](#) Sara Tolman and Edmond Walsh.

“From rural schools to city schools, individual teachers to science departments, and newbies to veterans, we invite ALL Idaho Science educators K-12 to join our Statewide Learning Community! This will be a place to collaborate, share ideas and resources, and enhance science education in Idaho.”

Fill out this [FORM](#) to get registered to attend the December meeting!



BOISE STATE UNIVERSITY

# STEM TEACHING FELLOWSHIP

Recruiting now for a community-based cohort of Master's in Teaching candidates dedicated to high quality STEM teaching in Idaho's rural-serving schools.

**Fully Paid Tuition +  
Salary Supplement**

## Eligibility Requirements

- » Primary residence in southwest Idaho (Regions 3 & 4)
- » STEM-related bachelor's degree
- » Not previously certified to teach in Idaho
- » Desire to teach in Grades 6-12 rural-serving schools
- » Commitment to pursue the program full-time

## STEM Teaching Fellowship

Boise State University is offering a STEM Teaching Fellowship for a community-based cohort of Master's in Teaching candidates.

Candidates must be dedicated to high-quality STEM teaching in Idaho's rural-serving schools.

Program features:

- » Initial teacher certificate & Master in Teaching degree
- » FULLY paid tuition and fees -AND- a stipend for living expenses
- » \$10,000/year salary supplement for first 4 years teaching
- » and more!

Interested in participating? Complete this form: <https://ow.ly/hObX50Q0CE9>

Cohort starts May 2024.

Please share this opportunity with STEM-focused candidates in your district!

# 28 STEM Activities for Your Makerspace!

www.sciencebuddies.org



## Maker Space Fun!

Find engaging [#makerspace](#) [#STEM](#) activities that use simple materials but provide great opportunities for kids to explore engineering design.

<https://sbgo.org/maker23-fb>

## Save the date for SheTech!



## SheTech with Women Innovators

Tuesday, January 30, College of Idaho

SheTech is a FREE discovery day for high school girls to:

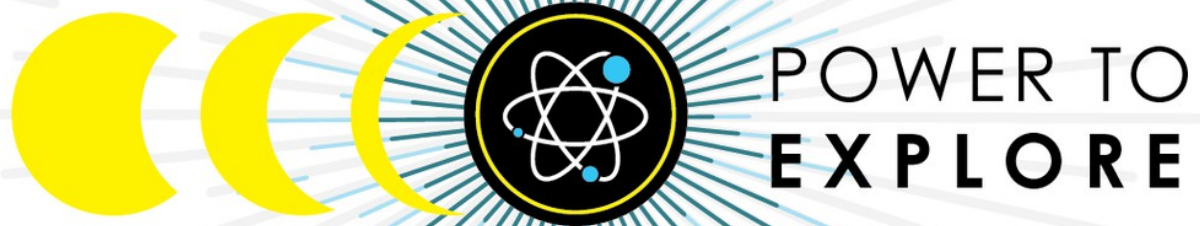
- Explore STEM careers in hands-on workshops taught by STEM role models
- Get innovative with a real-world STEM problem solving challenge – including prizes!
- Meet dozens of real people and organizations working in STEM

Volunteer opportunities:

- Host a 45-minute workshop
- Showcase your organization in the TechZone
- Support event planning
- General day-of volunteering

Save the date by filling out [this Google Form!](#)





POWER TO  
EXPLORE

RADIOISOTOPE POWER SYSTEMS

## The Power to Explore

Calling all K-12 student space and science enthusiasts! [NASA - National Aeronautics and Space Administration](https://www.nasa.gov) wants to hear where and how you'd explore space with the Power to Explore Student Challenge. First, learn how Radioisotope Power Systems (RPS) have enabled spacecraft to explore the farthest reaches of our solar system, then share (250-word limit) how you'd design an RPS-powered space mission to fulfill your space exploration dreams!

Enter here: <https://rps.nasa.gov/STEM/power-to-explore>



National Girls  
Collaborative Project

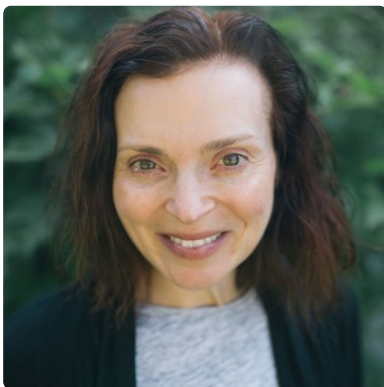
ADVANCING  
THE AGENDA IN  
GENDER EQUALITY

## Advancing the Agenda in Gender Equality

Informal STEM education programs serving girls from historically excluded groups - this is for you! Apply to participate in the Brite Program, which provides an online suite of activities centered around collaborative learning and engagement with diverse women role models for girls ages 12-16.

[Application](#) closes on Dec. 15, 2023.

## ISTA Board Members 2023-2024



### Tanya Elmer

Idaho Science Teaching Association President  
2023-2025

**Email:** [idahoscienceista@gmail.com](mailto:idahoscienceista@gmail.com)

**Website:** <https://www.idahoscienceistateacherswix.org/>

**Facebook:** [facebook.com/idscienceteachers](https://www.facebook.com/idscienceteachers)

**Twitter:** [@IdahoScience](https://twitter.com/IdahoScience)



**Melyssa Ferro**

Melyssa is using Smore to create beautiful newsletters

