



NATIONAL SCIENCE EDUCATION
LEADERSHIP ASSOCIATION

2024

LEADERSHIP SUMMIT



the Curtis Hotel
1405 Curtis Street
Denver, Colorado



Summit Theme

**Elevating All Students in Science:
Reaching New Heights for Equity
and Instruction**

Educate ♦ Collaborate ♦ Advocate



Welcome

SCIENCE LEADERS

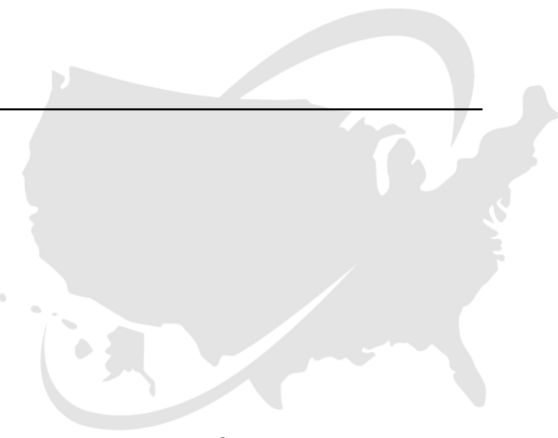
It is with great pleasure that I extend a warm welcome to all attendees of the NSELA Leadership Summit, where we gather to elevate science leaders and maximize effective science teaching and learning in our ever-evolving educational landscape. As we embark on this collective journey, our mission is clear: to navigate the complexities of science education, ensuring an inclusive and equitable experience for all students.

This year's Leadership Summit holds particular significance as science leaders nationwide find themselves in various phases of implementing standards derived from the Framework for K-12 Science Education. At the heart of these standards is a commitment to equitable access to science for every student. The Professional Learning Committee is proud to present a slate of sessions dedicated to exploring the intersections of equity and instruction in science education.

As you embark on this experience, I encourage you to embrace the wealth of knowledge of your colleagues, engage in meaningful discussions, and forge connections that will elevate your leadership in science education. Together, let us continue to inspire and shape the future of science teaching and learning.

Matt Christiansen, Ed.D.

Professional Learning Committee Chair

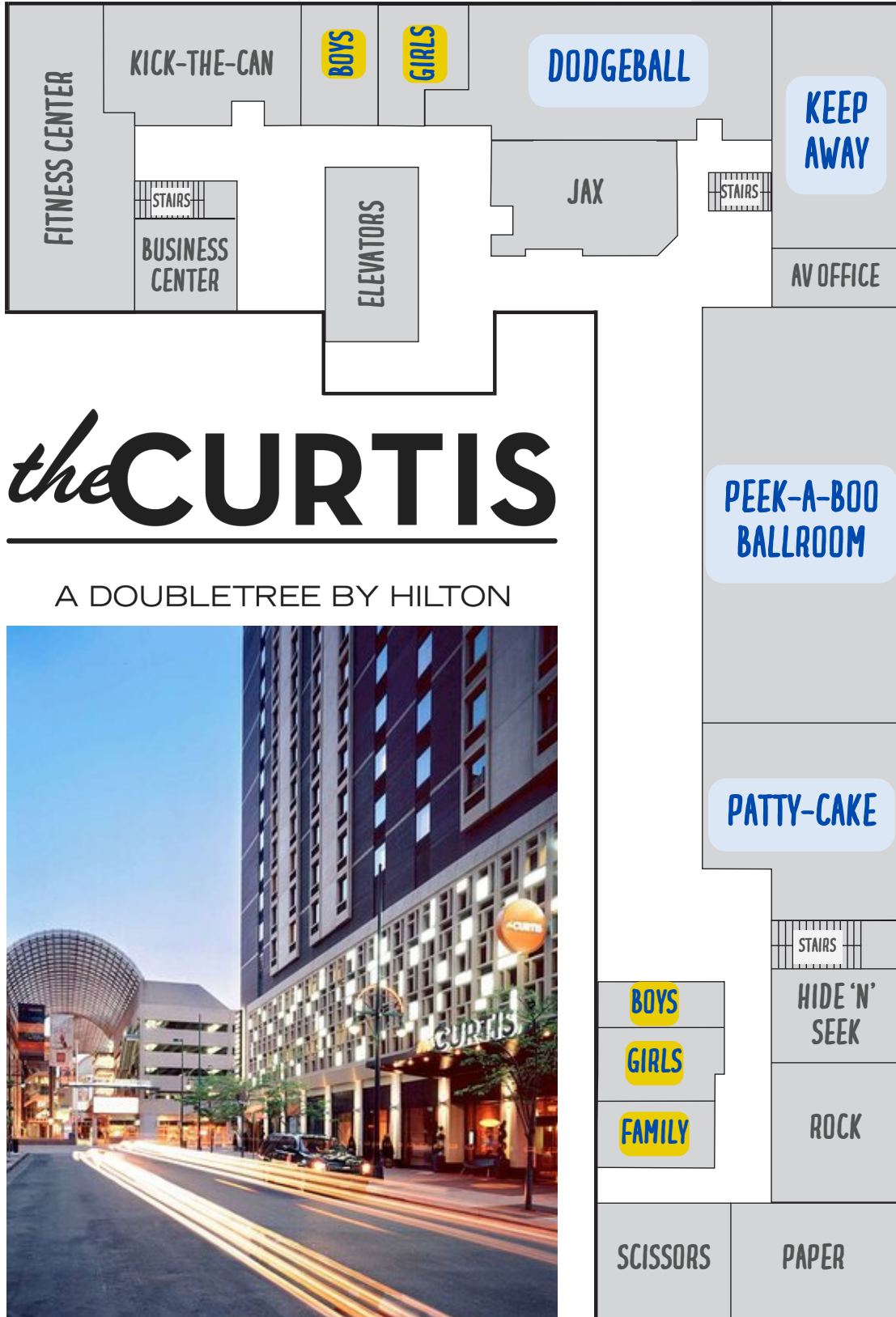


#NSELALS24 SCHEDULE

7:00a-7:40a	Registration & Light Breakfast
7:40a-7:55a	Welcome Address
7:55a-9:15a	Plenary Session
9:15a-9:35a	Networking Break
9:35a-10:45a	First Breakout Sessions
10:55a-11:25a	Partner Sessions
11:30a-1:00p	Lunch & General Meeting
1:05p-2:15p	Second Breakout Sessions
2:15p-2:35p	Networking Break
2:35p-3:45p	Third Breakout Sessions
3:45p-4:00p	Closure



#NSELALS24 2ND FLOOR MAP



#NSELALS24 PLENARY SESSION



PEEK-A-BOO BALLROOM

ANCHORING SCIENCE LEADERSHIP IN EQUITY PRINCIPLES

Janna Mahfoud (BSCS Science Learning)

Equity is often stated as a key value in education, but how can we anchor equity in science leadership work? Reflect on your own ideas, beliefs, and approaches to equity and learn how one science leadership development program embeds equity as part of learning to lead curriculum implementation.

NSELA Virtual Professional Learning

Be sure to check out the [NSELA PL Calendar](#) to register for upcoming webinar events from amazing invited speakers and our valued partners. You don't want to miss them!



BrainPOP Science™

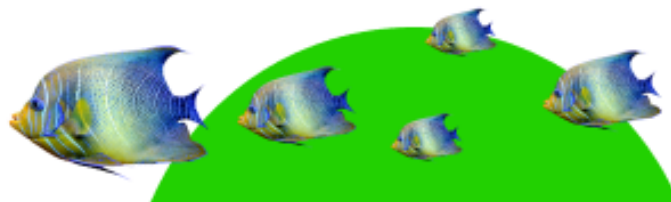


Show your middle schoolers

science is everywhere



LEARN MORE



#NSELALS24 FIRST BREAKOUTS



PATTY-CAKE ROOM

A TOOLBOX FOR DESIGNING A LOCAL, EQUITABLE NGSS ASSESSMENT SYSTEM

Sara Cooper, Sam Agoos, & Angela Landrum

Designing common assessments with equity at the center that are accessible and aligned to student opportunities to learn and that connect to students' interests and identities is a tremendous challenge. The NGSS District Assessment Toolkit is specifically designed as a solution to this problem.



DODGEBALL ROOM

CHARACTERISTICS OF SUCCESSFUL LEADERSHIP TEAMS

Brooke Gorman

In this interactive session, learn about the importance of leadership teams to support equitable science learning opportunities for all students. Explore the characteristics of effective leadership teams and considerations for developing a team.



KEEP AWAY ROOM

SHARED LEADERSHIP IN CURRICULUM DEVELOPMENT AND IMPLEMENTATION FOR ALL LEARNERS

Lindsey Roy & Rachel Fyfe

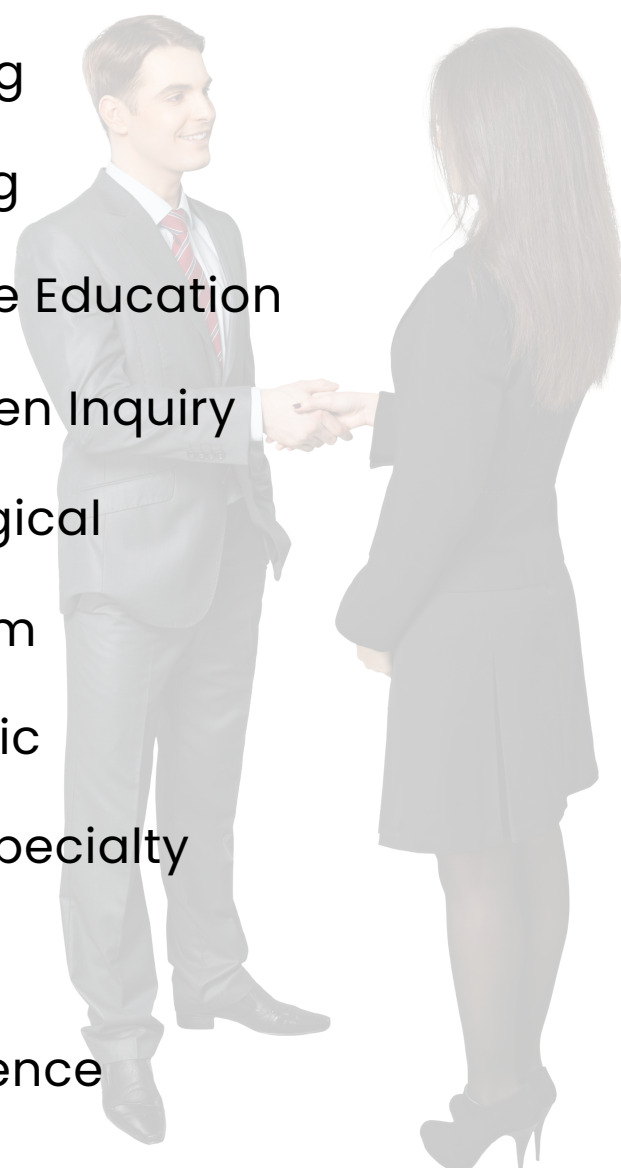
We will share the iterative unit development process that Lincoln Public Schools used to create storylined elementary units for implementation district-wide. We will focus on the process of unit development and implementation through the lenses of teacher, building, and district leadership.

#NSELALS24

2024 CONTRIBUTORS



Curie Partner	BrainPOP
Curie Partner	ECA Science Kit Services
Curie Partner	ExploreLearning
Curie Partner	Penda Learning
Curie Partner	Vernier Science Education
Newton Partner	Argument Driven Inquiry
Newton Partner	Carolina Biological
Newton Partner	Data Classroom
Newton Partner	PASCO Scientific
LS Sponsor	FOSS/School Specialty
LS Sponsor	InnerOrbit
LS Sponsor	TeachKind Science



THANK YOU!

NSELA extends our deepest gratitude for the continued support of our partners and sponsors. Your affiliation enables us to fulfill our mission of promoting exemplary science education leadership. Thank you for your continued commitment to NSELA and its members.

#NSELALS24 PARTNER SESSIONS

KEEP AWAY ROOM

INCORPORATING SEPS INTO HQIM: HARNESSING TECHNOLOGY FOR ENGAGING SCIENCE INSTRUCTION

Suzy Kehret & David Kanter (ExploreLearning)

Discover innovative strategies for integrating Science and Engineering Practices (SEPs) into High-Quality Instructional Materials (HQIM) to enhance science education. Explore how technology can be leveraged to engage students in meaningful scientific inquiry and engineering design processes. Learn practical approaches for designing inquiry-based science lessons aligned with the Framework that fosters critical thinking and collaboration.

ExploreLearning®

WE MAKE STEM LEARNING

SERIOUS FUN

Seriously fun K-12 STEM solutions



explorelearning.com



NSELA Past Webinars & Resources

You can find recordings of this and other partner webinars in the [Digital Catalog](#) on the [NSELA member portal](#).

In this [ExploreLearning Partner Webinar](#), you will see Practical Tool Kits for Implementing Science and Engineering Practices: Using Data to Leverage Change!



#NSELALS24 PARTNER SESSIONS

DODGEBALL ROOM

THOUGHT LEADERSHIP PARTNERS – LEARNING & GROWING STRONGER TOGETHER! CAROLINA’S RESOURCE SHARING & UPDATES FOR SCIENCE LEADERS

Mark Meszaros (Carolina Biological)

As an official NEW Partner to NSELA in 2024, we want your feedback on how we can advance our partnership. Carolina will initially share how we are currently partnering with NSELA members. Then we will encourage a ‘think, pair, share’ with your colleagues on how Carolina can support you. Finally, an interactive session where everyone can share their ideas on how to advance our partnership and bring value to NSELA members to improve science education for our children. During this session, Carolina will share many free resources. If you have a “District Science Website or Plan” that you wish to share with your colleagues, we invite you to bring a copy and Carolina will facilitate sharing it with your colleagues.

Please share these **FREE** resources with your district science leaders and teachers.

Sci-Ed Solutions Matter

Catalogs and Correlations

[Correlations and State Standards](#)
[Carolina® Science Catalog](#)
[CTE / STEM Buying Guides](#)

Knowledge Center: Recommendations

[Valued Resources for New Teachers](#)
[Science and STEM Buying Guides](#)
[Planning for Teaching Success](#)

Join Us: Professional Development

[Workshop Resources](#)
[Webinars Archived and Scheduled](#)

Funding Assistance and Proposal Creation

[ESSER Funding Assistance Grant Assistance and Info](#)

Learn more today!
 Contact Tom Trapp: 402.960.5578 • Tom.Trapp@Carolina.com

#NSELALS24 PARTNER SESSIONS



PEEK-A-BOO ROOM

LEVERAGING PASCO PORTAL FOR ENHANCED SCIENCE EDUCATION: EMPOWERING TEACHERS, ENRICHING LEARNING

Isaac Martin & Brett Sackett (PASCO)

Join us for the first peek at your district’s resource to support hands-on science learning with integrated professional development for your teachers. In this session, we’ll explore how PASCO Portal revolutionizes science education by providing a comprehensive digital environment tailored to meet the evolving needs of educators and students. Discover how PASCO Portal serves as a dynamic hub, offering ready-to-use activities, standards-aligned curriculum resources, and professional development opportunities—all accessible at your fingertips. Learn how to empower teachers with the tools and support they need to effectively integrate hands-on science, STEM, and engineering solutions into their classrooms.



Leadership Summit Evaluation Form ✓

Be sure to give us your feedback so we can continue to provide NSELA members high-quality professional learning. QR codes will be provided at the event!



PASCO PORTAL FOR SCIENCE EDUCATION

A first-of-its-kind digital environment that brings PASCO’s powerful hands-on solutions to your digital science lab.



- Core Curriculum
- Experiment Library
- On-Demand Professional Learning
- Live Chat Support



COMING JUNE 2024

pasco.com/portal

PASCO

#NSELALS24 PARTNER SESSIONS



PATTY-CAKE ROOM

BEYOND SPREADSHEETS: BUILDING DATA TOOLS BUILT FOR LEARNERS IN THE ERA OF DATA

Aaron Reedy (Data Classroom)

Data skills have never been more important for our students. In the era of big data, the skills required to work with data have become prerequisites for careers far beyond the traditional STEM fields and are now prized in areas ranging from business and journalism to politics and entertainment. Join former high school science teacher, scientist, and DataClassroom cofounder, Dr. Aaron Reedy as he takes you through the design elements not found in spreadsheet programs that directly support student learning and talks about supporting a new generation of learners with data tools built for the 21st century.



Follow NSELA on Social Media for Updates!

 [@NSELAScience](https://twitter.com/NSELAScience)

 [NSELA Page](https://www.facebook.com/NSELA)

 [NSELA Page](https://www.linkedin.com/company/nsela)

DataClassroom is a data tool built for teachers and students

We did not know it could be like this. I had never witnessed my students experience such an intuitive and compelling interaction with data throughout my entire teaching career.

Bob Kuhn, Fulton County Schools, Georgia

The graphing is easy and my students now know the real goal is to figure out what it means. Now they use DataClassroom, my students can spend their time and energy to figure out what the data are saying.

-Trudy Pachon, San Diego Unified School District, California

It's easy for the students to use, but they still have to think. There's a kind of sweet spot, where they can work intuitively, but there is room to experiment and make mistakes and have discussions.

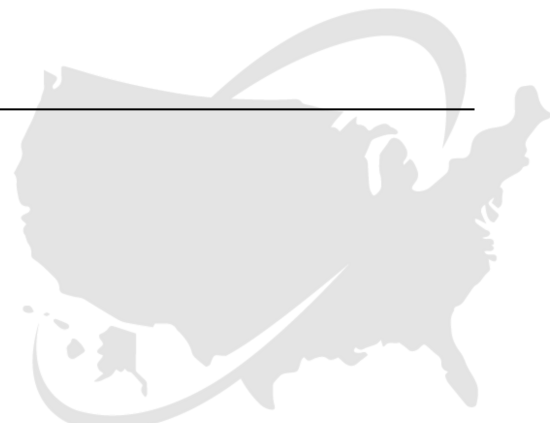
-Alissa Poppen, Waterford School, Utah

 **DataClassroom**
DataClassroom.com



#NSELALS24

OLISE AWARD



SPONSORED BY FOSS/SCHOOL SPECIALTY

MARY STARR

Executive Director, Michigan Mathematics and Science Leadership Network (MMSLN)

Since 1979, this prestigious award honors an NSELA member, who through professional work, has demonstrated outstanding leadership in science education at the school, county, regional and/or national levels. This year the \$1000 award and plaque will be presented to our 2024 awardee, Dr. Mary Starr, during the NSELA Leadership Summit in Denver, CO.

Dr. Starr's contributions to science education are thoughtful and community-based. For over a decade, she has been Executive Director of the Michigan Mathematics and Science Leadership Network (MMSLN). Throughout her career, Dr. Starr has worked to improve science education through her contributions at the state and national level to enhance and promote diversity, equity, and inclusion work throughout education organizations in Michigan, focusing on ensuring equity in science and mathematics education.

Dr. Starr's expertise lies in developing meaningful professional development experiences via coaching science teachers in their classrooms, in small groups during professional development experiences, and in traditional professional development experiences. Not only has she developed curriculum materials for professional development but also for elementary, middle and high school STEM students. Further, she facilitates environments in which stakeholders may identify their needs and receive guidance in changing current practices to meet those goals. By identifying critical needs in schools, communities, and higher education, she is able to match their needs with practical solutions through the implementation of cross-community and cross-generational working groups.

In addition to serving as the Executive Director of MMSLN for the past 11 years, Dr. Starr led Project-Based Inquiry Science, a project developed collaboratively with authors and researchers from Georgia Tech and Northwestern University along with It's About Time publishers. She is also President of Starr and Associates an Educational Consulting business that provides high-quality innovation and implementation support to middle school science teachers throughout the United States.

NSELA is proud to present the 2024 OLISE Award to Dr. Mary Starr. She is a tireless advocate in and for science teachers and science leaders alike. We are grateful to acknowledge her extensive service to science education researchers, science teachers, and of course, science learners.

#NSELALS24 NSELA RECOGNITION



NSELA PRESIDENTIAL CITATION

NANCY KELLOGG

Colorado Science Education Network (CSEN)

Nancy Kellogg is awarded the Presidential Citation in recognition of her significant contributions to the NSELA and her unwavering support of generations of science leaders. As a strong proponent of student learning based on local community issues, Nancy champions experiential learning aligned with the NGSS three dimensions, inspiring students' interest in science and integrating it with other content areas. Nancy's dedication to NSELA spans over three decades, where she has held various positions on the board. Currently, Nancy serves as the interim Steering Committee Co-Chair for the Colorado Science Education Network and President-elect and Co-Chair for University Relations for Achievement Rewards for College Scientists.



Empowering Minds: Elevating Science, Math, and Engineering Education



Professional Learning
Teachers engage in inquiry-based investigations, collaborate, and design rigorous learning experiences

High Quality Instructional Materials
All our materials are crafted using Argument-Driven Inquiry, refined through research & feedback.

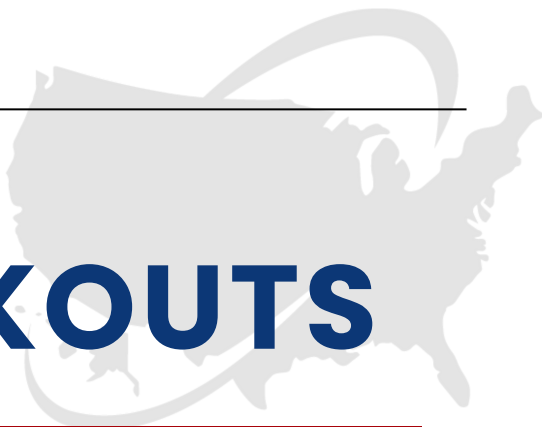
Learning platform
Empowering teachers & students to collaborate on investigations remotely or in-person.

ADI Learning Hub Investigations empower students to explore science & math concepts in real-world contexts.

512-777-4099
howdy@argumentdriveninquiry.com



#NSELALS24 SECOND BREAKOUTS



DODGEBALL ROOM

ADVOCATING FOR HIGH-QUALITY INSTRUCTIONAL MATERIALS: AN OPPORTUNITY FOR COLLABORATION

Shannon Wachowski & John-Carlos Mariño

District leaders play an important role in the adoption of HQIM and can serve as catalysts for smart adoption processes. EdReports will share case studies of district partnerships and discuss how to use local priorities to drive the instructional materials adoption process.



KEEP AWAY ROOM

USING ISSUES IN SUSTAINABILITY TO PROMOTE EQUITABLE SCIENCE LEARNING

Wendy Jackson & Maia Binding

Teacher leaders will learn how to reframe science learning around sustainability issues based on the U.N.'s Sustainable Development Goals. They will explore how these goals provide learning contexts to address the needs and interests of their students while also meeting the demands of the NGSS.



PATTY-CAKE ROOM

EMPOWERING DIVERSE SENSEMAKING IN THE CLASSROOM & BEYOND

Lizette Navarrete-Burks, Tonya Jeffery, & Sarah Albrecht

This session aims to enhance the knowledge and skills of equity-centered science instructional leaders. Explore leadership strategies and resources developed from an outdoor adventure collaboration. Leveraging equity-focused teacher professional learning can help you create more just student learning.

#NSELALS24 SECOND BREAKOUTS



PEEK-A-BOO ROOM

CENTERING EQUITY AND INCLUSION IN A DISTRICT'S SCIENCE CURRICULUM WORK

Karen Lionberger & Nico Janek

Ensuring that the science curriculum supports more inclusive classroom practices – those that catalyze a sense of STEM identity and belonging for all learners – can result in positive achievement and growth, especially for marginalized learners. This session will engage leaders in learning key principles of Universal Design for Learning and what type of instructional strategies lead to authentic equity and inclusion in science classrooms.



USE THE
HASHTAG
#NSELALS24!



Accelerate Science Achievement with Penda Gamified, Intervention Supplement

Handcrafted activities for NGSS, TX TEKS or FL SASS



Gamified for Students:

- Designed for grades 3-high school
- Levels, streaks, badges and customizable avatars



Inclusive Instruction:

- Immersive reader supports 60+ languages



Automated for Teachers:

- Auto-assigned activities aligned to your scope and sequence



Measurable Results:

- 3-Dimensional activities
- Customizable reports



Contact us at: [Pendalearning.com](https://pendalearning.com)



#NSELALS24 THIRD BREAKOUTS



DODGEBALL ROOM

CALL TO ACTION: DIVERSITY, EQUITY, & INCLUSION-CENTERED IMPLEMENTATION OF SCIENCE FOR ALL

Leena Bakshi McLean

Leaders will reflect on stereotypes and implicit biases that affect systemic science implementation. We will discuss equitable leadership implications and reflect on your own context and next steps using the "DEI in Science" Action Plan that maps out student groups and measures impact data.



KEEP AWAY ROOM

EMPOWERING LEADERS TOWARD EQUITY-DRIVEN SYSTEMS CHANGE

Vanessa Lujan

Join us to uncover the transformative potential of systems thinking for improving K-12 science! Engage in practical exercises and gain insights into tested approaches for fostering equitable change. Don't miss this valuable opportunity to enhance your leadership and drive meaningful transformation.



PATTY-CAKE ROOM

BSCS ANCHORED INQUIRY LEARNING INSTRUCTIONAL MODEL: SUPPORTING EQUITABLE TEACHING AND LEARNING

Cindy Gay

Explore how leaders can use the new BSCS Anchored Inquiry Learning (AIL) instructional model to support teachers in creating learning experiences that motivate students with significant, real-world phenomena and problems! Learn how AIL cycles of inquiry and sensemaking culminate in student agency!

#NSELALS24 THIRD BREAKOUTS



PEEK-A-BOO ROOM

LEADERSHIP MATTERS: WHY WE NEED YOU

Kathy Renfrew & Elizabeth Barrett-Zahn

This informative session will provide the reasoning for becoming an author for the Leadership Matters column. Join us for an interactive session where you will have the opportunity to learn, talk, brainstorm and maybe even get started on an article. Prior authors will be available to share their experiences having gone through the process and having their work published.

Members can access Leadership Matters articles in the [Digital Catalog!](#)

ECA

 | Science Kit Services
READY-TO-TEACH™ KIT SERVICES
800-537-0008 | www.ecakitservices.com

What ECA Does

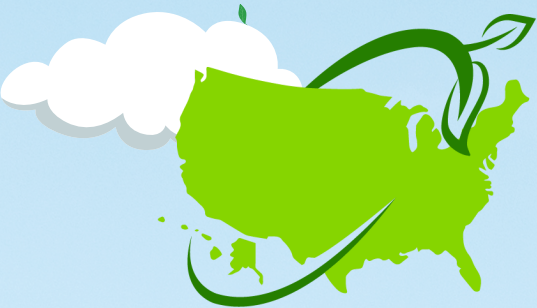
- PLAN (calendar icon)
- SHOP (shopping cart icon)
- PREP (scissors icon)
- NOTIFY (envelope icon)
- DISTRIBUTE / SHIP (truck icon)
- STORAGE (box icon)
- LIVE MATERIALS (fish icon)

What You Do

- TEACH (lightbulb icon)

#NSELALS24

UPCOMING EVENTS



NSELA

SUMMER LEADERSHIP INSTITUTE

SCIENCE LEARNING FOR SUSTAINABLE AND JUST FUTURES

JULY 16-18, 2024 IN SEATTLE, WASHINGTON

Youth are demanding education that helps them prepare for the shifting climate we live in so they are best prepared for building equitable, just, sustainable, and flourishing futures for themselves, their communities, and the world more generally. NSELA is codesigning this year's Summer Leadership Institute with the Institute for Science and Math Education at the University of Washington Seattle and focusing it on science-grounded climate change education (CCE) and sustainability learning. We invite all interested leaders to join us and learn, explore, and plan actions you can take in your own contexts to provide new learning opportunities for educators and youth.

Learning goals for participants include being able to:

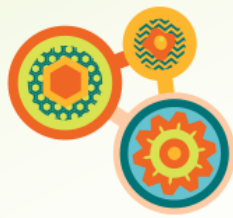
- Develop as educational leaders to foster climate learning opportunities in our systems.
- Explain Climate Justice as it relates to CCE approaches.
- Experience diverse climate learning activities and pedagogies.
- Identify and propose uses within their own learning contexts for existing climate learning resources from the STEM Teaching Tools initiative.
- Develop initial climate justice education implementation plans.
- Engage in new and expanding professional learning and implementation networks to learn more about climate change education leadership.



BEST PRICE

Early Bird Discount
\$275 FOR MEMBERS!

TO REGISTER AND MORE INFO, GO TO [NSELA.ORG/2024-SLI](https://www.nsela.org/2024-sli)



Vernier
Connections™

Inspiring future generations of STEM-literate citizens

Web-based interactive lessons designed to put hands-on investigation at the heart of students' learning.



3D learning designed for the NGSS

TEKS Aligned with the TEKS



Inclusive, accessible, and relevant



Integrated with your LMS



[vernier.com/connections](https://www.vernier.com/connections)



You're Invited!

Want to learn more about Vernier Connections?

Join us for a happy hour event! Connect with our team, mingle with fellow educators, and enjoy drinks and refreshments on us.



Vernier®

SCIENCE EDUCATION

For science educators,
by science educators

DATE

Thursday, March 21, 2024

TIME

5:00 p.m. – 6:30 p.m.

LOCATION

Blue Spruce Suite

Hyatt Regency Denver

At Colorado Convention Center
650 15th St., Denver, CO 80202