



PRISE Philadelphia
Regional Institute
for STEM Educators

2025 Annual STEM Educator Conference

Saturday, October 25, 2025

8:30 AM - 2:00 PM

Real Work in the Real World:
Empowering Students
to Impact the Community Through STEM

TGR Learning Lab at Cobbs Creek
7401 Lansdowne Ave
Philadelphia, PA 19151

Conference Schedule at a Glance

Time	Event
8:30 - 9:00 AM	<i>Registration & Breakfast</i>
9:00 - 9:05 AM	Welcome / Introductions
9:05 - 9:30 AM	Keynote Speech
9:30 - 9:40 AM	TGR Overview
	<i>Transition Time - 10 min</i>
9:50 - 10:40 AM	Workshop/Panel Session 1
	<i>Transition Time - 10 min</i>
10:50 - 11:40 AM	Workshop/Panel Session 2
11:40 AM - 12:30 PM	Resource Fair Networking Lunch
	<i>Transition Time - 10 min</i>
12:40 - 1:30 PM	Workshop/Panel Session 3
	<i>Transition Time</i>
1:35 - 2:00 PM	Finale / Raffle

Schedule of Events

- 8:30 - 9:00 Registration** - First Floor Lounge
- 9:00 - 9:05 Welcome / Introductions** - Multipurpose Room (Basement)
- 9:05 - 9:30 Keynote Speech** - Multipurpose Room (Basement)
- 9:30 - 9:40 TGR Overview** - Multipurpose Room (Basement)
- 9:50 - 10:40 Workshop/Panel Session 1**
- Taking a Civic Science Mindset: Resources for Teaching Place-Based Environmental Literacy & Sustainability** - Multipurpose Room
- Meet a Mathematician** - Classroom 101
- United States International Young Physicist Team: How Do Students and Teachers become involved** - Classroom 102

<u>STEM Education for Tomorrow: Empowering Youth to Teach and Lead Through Peer-Led Stations</u>	- Classroom 103
<u>Black Girls Thriving: Math x Mindset</u>	- Classroom 104
<u>Authentic Research Using Evidence, Claims, Reasoning and AI to Enhance STEM Learning</u>	- Classroom 202
<u>Introduction to 3D Printing & Coding with Tinkercad: Shoe Charms Challenge - Part 1</u>	- Makerspace

10:50 - 11:40 Workshop/Panel Session 2

<u>Transforming Global Communities Through STEM Education</u>	- Multipurpose Room
<u>Get Creative with Your Algebra using Desmos!</u>	- Classroom 101
<u>Experiments and Demonstrations in Renewable Energy for the K-12 Classroom</u>	- Classroom 102
<u>Roundtable: Future STEM Teacher Clubs</u>	- Classroom 103
<u>Understanding the Urban Watershed Curriculum</u>	- Classroom 104
<u>Code Blue! The Science of Saving Lives</u>	- Classroom 202
<u>Introduction to 3D Printing & Coding with Tinkercad: Shoe Charms Challenge - Part 2</u>	- Makerspace

11:40 - 12:30 Lunch

*Pick up lunch box in Second Floor Academic Space; if you made dietary requests, please notify the caterer. Feel free to eat in this open space, First Floor Lounge, or take a break outside! No food in the classrooms or basement multipurpose room, please.

Networking Lunches - Second Floor Academic Space

Lunch conversations include:

- *High school & college students*
- *Future STEM Teachers clubs*

Resource Fair - First Floor Lounge

Visit the various tables to learn about organizations and resources.

12:40 - 1:30 Workshop/Panel Session 3

<u>From Curiosity to Career: Exploring STEM Teaching Pathways</u>	- Multipurpose Room
<u>Reframing Lessons to Make Them Purpose-Driven</u>	- Classroom 101
<u>Reworking AI for the Classroom</u>	- Classroom 102
<u>NBA Math Hoops - Creating the Next Math Champion</u>	- Classroom 103
<u>POGIL: Process Oriented Guided Inquiry Learning</u>	- Classroom 104
<u>Immersive Learning: Integrating Virtual Reality into STEM Education</u>	- Classroom 202

1:30 - 2:00 Finale / Raffle - First Floor Lounge

Thank you to our Conference Host and Sponsor

This event is part of Philadelphia STEM Equity Week. The Philadelphia Regional Institute for STEM Educators is proud to partner with the Philadelphia STEM Equity Collective (PSEC), which aims to unite educators, students, professionals, community leaders, and families in addressing systemic barriers and promoting equitable access to STEM fields and showcasing the vibrant STEM programs Philadelphia has to offer.



The Philadelphia Regional Institute for STEM Educators extends its sincere appreciation to the TGR Learning Lab and staff for providing an exceptional setting and for their invaluable assistance in the preparation and throughout the 2025 PRISE STEM Educator Conference.

KEY: SUBJECT AREAS/TOPICS



BIOLOGY



MATH



CAREERS IN STEM



MEDICAL



CHEMISTRY



PHYSICS



COMPUTER
SCIENCE



STEM



ENGINEERING



STEM TEACHING



ENVIRONMENTAL
SCIENCE



TECHNOLOGY

Keynote Speaker

Uncovering Brilliance through STEM for All Students

Multipurpose Room - Basement

Shameeka Browne, M.Ed.

Math Specialist and Content Lead, *Bala Cynwyd Middle School*

Founder, *Math is All Around Us*

Author, *Queen of 24*



Shameeka Browne is a proud wife and mother of five who brings both heart and vision to her work as a middle school math educator, children's author, and STEM advocate. She is the founder of *Math is All Around Us LLC* and author of *Queen of 24*, where she inspires families and students to discover the joy of math in everyday life. A former School Board President in the Abington School District, Shameeka continues to champion equity and innovation in education. She leads and supports STEM opportunities through Math Counts, First Lego League, Future City, and the National Society of Black Engineers Jr. (NSBE Jr.), opening doors for underrepresented youth to thrive in math, engineering, and problem-solving.

Workshop Session 1

9:50 -10:40 AM

Taking a Civic Science Mindset: Resources for Teaching Place-Based Environmental Literacy & Sustainability

Session 1 / Multipurpose Room - Basement



Recommended for K-12 Teachers, Out-of-school time educators, Administrators

Jessica Vaden, Ph.D.

Civic Science Fellow
The Franklin Institute

Ariel Coff

Elementary Teacher (Grades K-5)
Anne Frank Elementary School

Michael Matteo

Math and Science teacher (Grade 6)
Fanny Jackson Coppin School

Description: Why does my street flood after a storm? Why is my corner store cheaper than the farmers market? Teaching with local, data-rich stories can make Environmental Literacy & Sustainability standards more relevant, grounded, and skill-building. Learn about free, ready-to-use resources from The Franklin Institute, co-created with local middle school teachers.

Subject areas/topics: STEM / Environmental Science



Meet a Mathematician

Session 1 / Room 101 - 1st Floor



Recommended for K-12 Teachers, High school students, College students, University faculty/staff

Selvi Kara, Ph.D.

Assistant Professor of Mathematics
Bryn Mawr College

Description: Join us to explore Meet a Mathematician (MaM), a video series highlighting profiles of mathematicians' from diverse backgrounds. We will work on a classroom activity with MaM videos and share ideas for how these resources can support and enrich your own teaching.

Subject area/topic: MATH



United States International Young Physicist Team: How Do Students and Teachers become involved

Session 1 / Room 102 - 1st Floor



Recommended for K-12 Teachers, High school students, University faculty/staff, Out-of-school time educators, Administrators

Elia Eschenazi, Ph.D.

Professor and Chair of Physics Department
Saint Joseph's University

William McWatters, Ed.D.

Physics Teacher
Octorara Junior-Senior High School

Bridget Whitfield

Student and IYPT team member
Octorara Junior-Senior High School

Valerie Wakeman

Student and IYPT team member
Octorara Junior-Senior High School

Peter Hu

Student and IYPT team member
Octorara Junior-Senior High School

Description: The United States International Young Physicists' Team (USIYPT) prepares teachers and students to compete in the "World Cup of Physics." Learn how to join USIYPT, support your students' journey to Switzerland next summer, and discover the resources our organization offers to help you succeed.

Subject area/topic: PHYSICS



STEM Education for Tomorrow: Empowering Youth to Teach and Lead Through Peer-Led Stations

Session 1 / Room 103 - 1st Floor



Recommended for K-12 Teachers, High school students, College students, Out-of-school time educators

Stacy Olitsky, Ph.D.

Associate Professor
Department of Teacher Education, Saint Joseph's University

Dominique Thomas, MPH

Manager, Social Justice Programs
Women in Natural Sciences (WINS), The Academy of Natural Sciences of Drexel University

Mariam Sowied

WINS II High School Junior/ Mediated Experiences Museum Explainers
The Academy of Natural Sciences of Drexel University

Stephy Jiang

WINS II High School Sophomore/ Animal Programs Museum Explainers
The Academy of Natural Sciences of Drexel University

Emely Perez

WINS II High School Junior/ Animal Programs Museum Explainer
The Academy of Natural Sciences of Drexel University

Herb Green, Ph.D.

Facilitator, *PRISE New Teacher Support Program*
Adjunct Associate Professor, *TUteach Temple University*

Tyler Baughman

Vice President, *NCTM Student Affiliate at Temple's TUteach Program*

Victor Jimenez-Lorenzo

Women & Math Ed Representative (WME), *NCTM Student Affiliate at Temple's TUTEACH Program*

Description: In this workshop, high school students will practice teaching STEM concepts using hands-on science stations. Students and teachers will then provide feedback on the stations and materials, in order to inform the development of a “stations” toolkit that can be used to support students learning to facilitate STEM activities.

Subject area/topic: STEM TEACHING, CAREERS IN STEM



Black Girls Thriving: Math x Mindset

Session 1 / Room 104 - 1st Floor



Recommended for K-12 Teachers, College students, University faculty/staff, Out-of-school time educators, Administrators

Helane Rogers

Senior Program Manager
Black Girls Love Math

Atiyah Harmon

Founder & Executive Director
Black Girls Love Math

Description: An interactive session empowering educators to cultivate growth mindsets and culturally responsive math practices. Discover strategies to build confidence, joy, and high achievement in Black girls, combining practical math enrichment with mindset tools that inspire persistence, problem-solving, and a lifelong love of mathematics.

Subject area/topic: MATH



Authentic Research Using Evidence, Claims, Reasoning and AI to Enhance STEM Learning

Session 1 / Room 202 - 2nd Floor



Recommended for K-12 Teachers, High school students, Out-of-school time educators

Judith Odom

Biology and Environmental Science Teacher
Chester High School

Description: Participants will be given strategies and resources to teach students how to incorporate Authentic Research into their science classes using AI and Claims, Evidence, and Reasoning skills. These tools can be used to enhance student's understanding of how scientists collaborate to complete real world research projects.

Subject areas/topics: STEM / Biology, Chemistry, Environmental Science



Introduction to 3D Printing & Coding with Tinkercad: Shoe Charms Challenge

Session 1* & 2 / Makerspace - 1st Floor



Recommended for K-12 Teachers, High school students

*This session will be conducted in two parts. Participation in Part 1 requires attendees to remain for Part 2 to complete the workshop. A maximum of 24 participants will be allowed into the workshop.

Adam Mesewicz

Director, Career Connected Learning Programs - Philadelphia

TGR Learning Lab

Rebecca Lehr

Senior Director Programs and Professional Learning

TGR Learning Lab

Description: In this hands-on workshop, participants will be introduced to the fundamentals of 3D printing and computational design using Tinkercad. Educators will learn how to 3D print by participating in a challenge themselves. This will be suitable for both students and teachers alike!

Subject area/topic: ENGINEERING



Workshop Session 2

10:50 -11:40 AM

Transforming Global Communities Through STEM Education

Session 2 / Multipurpose Room - Basement



Recommended for K-12 Teachers, Administrators

Shirley L. Posey

Director of STEM initiatives and Program Development, *Imhotep Institute Charter High School*

CEO/Founder, *NeuroElite STEM Educational Program*

Description: This interactive workshop explores how culturally responsive STEM education cultivates global leaders. Participants will examine real-world projects addressing climate, water, and food challenges while learning strategies to integrate culture, collaboration, and innovation into the classroom—empowering students to become problem solvers and changemakers in their communities and beyond.

Subject area/topic: STEM



Get Creative with Your Algebra using Desmos!

Session 2 / Room 101 - 1st Floor



Recommended for K-12 Teachers, High school students

Robert Lochel

President, Association of Teachers of Mathematics, Philadelphia and Vicinity
(ATMOPAV)

Mathematics Teacher, Hatboro-Horsham High School

Description: Learn how to use the Desmos online calculator to plan and create your own digital art and animations using skills from Algebra 1 and beyond. Bring a laptop and you'll learn power Desmos moves to play with your math and share your creations.

Subject area/topic: MATH



Experiments and Demonstrations in Renewable Energy for the K-12 Classroom

Session 2 / Room 102 - 1st Floor



Recommended for K-12 Teachers, High school students, College students,
University faculty/staff, Out-of-school time educators

Roberto Ramos, Ph.D.

Professor, Physics Department
Co-Director, Center for Undergraduate Research
Saint Joseph's University

Christian Ottesen

Physics Student
Saint Joseph's University

Jack Schiavo

Physics and Quantitative Economics Student ('27)
President, SJU Society of Physics Students
Saint Joseph's University

Description: This workshop will engage K-12 teachers with activities they can use to teach STEM in the context of Renewable Energy. The activities will educate STEM community members with sample course content and hands-on experiments showing how renewable energy can be effectively taught to K-12 students.

Subject area/topic: PHYSICS



Roundtable: Future STEM Teacher Clubs

Session 2 / Room 103 - 1st Floor



Recommended for K-12 Teachers, High school students, College students,
University faculty/staff, Out-of-school time educators, Administrators

Greer Richardson, Ph.D.

Associate Director, *Philadelphia Regional Institute for STEM Educators (PRISE) at SJU*

Professor and Director, *The La Salle Institute for Collective Impact in Education*, LaSalle University

Description: Join us for an exciting roundtable focused on empowering the next generation of STEM educators! Participants will learn about various initiatives to create Future STEM Teacher Clubs, share innovative ideas, and collaborate in brainstorming sessions to create impactful STEM teaching organizations at their own schools. This interactive discussion is a unique opportunity for teachers to ignite student interest in STEM education and cultivate a supportive community of future STEM teachers.

Subject area/topic: STEM TEACHING



Understanding the Urban Watershed Curriculum

Session 2 / Room 104 - 1st Floor



Recommended for K-12 Teachers but all are welcome as there are multiple opportunities to connect with this program

Paula Don

Retired STEM Educator

School District of Philadelphia

Ellen Schultz

Director of Strategic Partnerships

Fairmount Water Works Interpretive Center

Description: Discover how students grow their understanding of water, the relationship of humans and the natural environment and how they impact our environment and how it impacts them to move them to action. Sample of hands-on, authentic locally-based activity from the Curriculum that offers widening and deepening learning experiences. Think of it just like water—a drop, a trickle can become a flowing stream, joining with other streams to broader and more vast bodies of water—oceans of learning!

Subject areas/topics: STEM / Environmental Science



Code Blue! The Science of Saving Lives

Session 2 / Room 202 - 2nd Floor



Recommended for K-12 Teachers, High school students, Out-of-school time educators

Aisha Kittrell

STEM Educator (Grades 3-5)

Feltonville Intermediate School

Felicea Fennell

Elementary Teacher (Grade 3)

Howe Academic Plus School

Description: Code Blue! The Science of Saving Lives is a hands-on, career connected STEM experience where participants act as mini medical professionals. Learners engage in

authentic tasks, mirroring doctors, nurses, and biomedical engineers. This session connects to NGSS standards and empowers students to see themselves as future problem solvers. Attendees will be equipped to replicate these labs in their own programs, bridging science with career readiness.

Subject area/topic: STEM / MEDICAL , CAREERS IN STEM



Introduction to 3D Printing & Coding with Tinkercad: Shoe Charms Challenge

Session 1 & 2* / Makerspace - 1st Floor



Recommended for K-12 Teachers, High school students

*This session is a continuation of the Session 1 workshop. No new participants will be permitted to join during Session 2.

Adam Mesewicz

Director, Career Connected Learning Programs - Philadelphia

TGR Learning Lab

Rebecca Lehr

Senior Director Programs and Professional Learning

TGR Learning Lab

Description: See description under Session 1.

Subject area/topic: ENGINEERING



LUNCH EVENTS

11:40 AM - 12:40 PM

STEM Resource Fair

Resource organizations at a glance

During lunch, stop by the First Floor Lounge to connect with representatives from a variety of organizations who will be showcasing valuable resources. Take a moment to explore what's available and discover how these offerings can support you!

Organization	Table Representatives
Black Girls Love Math	Caraiah Stout
Center for the Advancement of Teaching at Temple University	Dana Dawson Jeff Rients
Harrisburg University of Science and Technology	Brett Vance Faith Adams-Michaels

HealthWorks Academies	Dale Keshishian
The Hidden Genius Project	Troy Kyles
Maker Faire Philadelphia	Emily Silverman
Pennsylvania Science Teachers Association (PSTA)	Dylan Fedell
Philadelphia Regional Institute for STEM Educators (PRISE)	Stacy Olitsky PRISE staff
Philadelphia Robotics Coalition	Dia Jones Amor Henderson
Philadelphia STEM Ecosystem	Betsy Pane
The POGIL Project	Rick Moog
Saint Joseph's University School of Education and Human Development	Stacy Olitsky
Temple University: TUtch & NCTM Student Affiliate at TUtch	Herb Green & TUtch alumni



Networking Lunches



Location: 2nd Floor Academic Space

Join one of our two networking luncheon tables in the 2nd Floor Academic Space! Take advantage of this opportunity to network, collaborate, and spark new ideas over lunch!

- **For High School and College Students**

Description: A chance for students interested in STEM education to meet one another and talk about their interest and experiences in STEM education. Come share your experiences and interests with fellow attendees!

Victor Donnay, PRISE Director

- **Future STEM Teacher Clubs**

Description: Come share ideas and conversation with those interested in developing Future STEM Teacher Clubs.

Greer Richardson, PRISE Associate Director

Look for the table signs and join us!

Workshop Session 3

From Curiosity to Career: Exploring STEM Teaching Pathways

Session 3 / Multipurpose Room - Basement



Recommended for High school students, College students. K-12 Teachers, University faculty/staff, Out-of-school time educators, Administrators welcome to join.
Moderator

Marlene Hilkowitz, M.Ed.

Retired facilitator of PRISE New Teacher Support Program
Philadelphia Regional Institute for STEM Educators (PRISE) at SJU

Panelists

Daniel Katz

College Sophomore, majoring in mathematics/minoring in urban education
University of Pennsylvania

Almas Akinyi

PRISE New Teacher Support Program Cohort 3 participant
High School Biology Teacher, Olney High School

Paula Miller

Academy of the Sciences Leader
Science Chair, Abraham Lincoln High School

Valerie Klein, Ph.D.

Associate Clinical Professor and Program Director for Teacher Education
programs
Drexel University

Dominique Thomas, MPH

Manager, Social Justice Programs
Women in Natural Sciences (WINS), The Academy of Natural Sciences of Drexel
University

Description: Are you curious about STEM teaching and other STEM education careers? Come and learn about the many pathways to a career in STEM education. You'll hear from a diverse group of panelists—people from different paths who have influenced young people in multiple contexts. The discussion will cover essential topics such as high school and college preparation for STEM teaching, educational/certification requirements, the benefits of teaching, and the resources available to pursue your passion. There will also be dedicated time for participants to ask questions and connect directly with the panelists.

Subject area/topic: STEM TEACHING, CAREERS IN STEM



Reframing Lessons to Make Them Purpose-Driven

Session 3 / Room 101 - 1st Floor



Recommended for K-12 Teachers, University faculty/staff, Administrators

F. Joseph Merlino, M.Ed.

President

The 21st Century Partnership for STEM Education

Description: Do too many of your students struggle with learning? Do they often feel tired and stressed, lacking in motivation? This hands-on workshop will describe simple techniques for making existing courses, units, and lessons more exciting and intrinsically motivating for your students through “purpose-driven framing” that ties to what students find meaningful and relevant. Drawing on 13 years of experience in Egypt developing purpose-driven curriculum and pedagogy, we’ll share real examples and strategies you can use immediately in your classroom.

Subject area/topic: STEM / Education Philosophy



Reworking AI for the Classroom

Session 3 / Room 102 - 1st Floor



Recommended for K-12 Teachers

Lisa Chan, Ph.D.

High School Math Teacher

Springfield Township High School

Description: Lisa will show how AI resources can be used to plan lesson plans, activities, tasks and assessments for high school courses such as Algebra I, Geometry and Statistics.

Subject area/topic: COMPUTER SCIENCE



NBA Math Hoops - Creating the Next Math Champion

Session 3 / Room 103 - 1st Floor



Recommended for K-12 Teachers, Out-of-school time educators, Administrators

Angeline Kamara

Regional Outreach Coordinator

Learn Fresh

Description: Educators will learn best practices for implementing the NBA Math Hoops game and curriculum, gain access to the Learn Fresh program platform, and learn about opportunities to extend students’ learning through events. Educators will get to practice the strategies of the game through interactive gameplay using dice, spinners, and comparing shooting percentages.

Subject area/topic: MATH



POGIL: Process Oriented Guided Inquiry Learning

Session 3 / Room 104 - 1st Floor



Recommended for K-12 Teachers, College students, University faculty/staff,
Out-of-school time educators, Administrators

Rick Moog, Ph.D.

Executive Director

The POGIL Project

Description: POGIL is a team-based, student-centered pedagogy that promotes development of important process skills (critical thinking, problem-solving, teamwork, etc.) in the context of a guided inquiry approach to content mastery. Participants in this workshop will experience a POGIL classroom environment and discover the fundamental aspects of POGIL pedagogy.

Subject area/topic: STEM



Immersive Learning: Integrating Virtual Reality into STEM Education

Session 3* / Room 202 - 2nd Floor

*This session has a maximum capacity of 15 people. If the session is full, please attend another session.



Recommended for K-12 Teachers, University faculty/staff, Out-of-school time educators, Administrators

Sa Liu, Ph.D.

Assistant Professor, Interactive Media Studies

Harrisburg University of Science & Technology

Description: This hands-on workshop introduces STEM educators to virtual reality technology, covering setup, classroom integration, and curriculum design. Participants will explore immersive VR applications, create interactive content, and learn strategies to enhance student engagement and understanding in STEM subjects using cutting-edge educational tools.

Subject area/topic: STEM / TECHNOLOGY



STEM RESOURCE FAIR

Organizations & Table Representatives

Black Girls Love Math

<https://www.blackgirlslovemath.org/>

Black Girls Love Math focuses on encouraging more girls to be involved in STEM careers. BGLM's program offers after school enrichment, Saturday workshops, college preparation, career exploration and math competitions. Typically, one teacher works with 15 students, and every lesson begins with an affirmation creed talking about a "SHE-RO" of the week, usually a Black or Brown women currently working in STEM. The She-Ro of the week answers the question "Why do I need to learn math?" and also allows our girls to see themselves represented in STEM. BGLM also looks for volunteer She-Ros to come talk to our students.

Contact: Atiyah Harmon atiyah@blackgirlslovemath.org

Center for the Advancement of Teaching at Temple University

<https://teaching.temple.edu/teaching-certificates/teaching-higher-education-certificate-teachers-professionals>

The Center for the Advancement of Teaching at Temple University offers a Teaching in Higher Education Certificate that faculty throughout the region have benefited from for over a decade. This 6-credit Certificate is designed to support postsecondary educators in learning and applying evidence-based best practices for designing and delivering effective educational experiences. We now have cohort options available for institutions.

Contact: Dana Dawson dana.dawson@temple.edu

Harrisburg University of Science and Technology

<https://www.harrisburgu.edu/>

Harrisburg University of Science and Technology is a private, four-year nonprofit university accredited by the Middle States commission located in Harrisburg, PA. Harrisburg University was created to address the Capital Region's need for increased educational opportunities in science, technology, engineering, and mathematics (STEM) careers, and it represents a major step to attract, educate, and retain Pennsylvania's diverse 21st century knowledge-based workforce.

Contact: Brett Vance bvance@harrisburgu.edu

HealthWorks Academies

<https://healthworksacademies.org/>

HealthWorks Academies is a non-profit organization that serves as an intermediary between education and industry to inform and engage students ages 14-24 in health

science careers. Careers span from entry level certificate programs to advanced degrees across a broad range of health science industries.

Contact: Dale Keshishian dkesh@healthworksacademies.org

The Hidden Genius Project

<https://www.hiddengeniusproject.org/>

The Hidden Genius Project trains and mentors Black male youth in technology creation, entrepreneurship, and leadership skills to transform their lives and communities. The cornerstone of The Hidden Genius Project is our award-winning Intensive Immersion Program. This FREE, 15-month, cohort-based training program provides Black males in high school with upwards of 800 hours of holistic, trauma/healing-informed, high-touch mentorship and intensive training that seeks to develop youth into strong and responsible leaders equipped with coding and entrepreneurial skills, who can identify and develop tech-enabled solutions to address society's most compelling challenges. We currently operate sites in Oakland, Richmond (CA), Los Angeles, Detroit, Chicago, Atlanta, Baltimore, and Philadelphia.

INTENSIVE IMMERSION PROGRAM BREAKDOWN: High school students (Hidden Geniuses) participate in 15 months of intensive technical and entrepreneurial training through two 7-week summer sessions and one year of after-school programming.

We empower our Geniuses to:

- Create innovative solutions to community challenges and problems
- Hone leadership and entrepreneurial skills and pitch business ideas
- Design their own websites, software, and other technical projects
- Establish healthy relationships and build trust with peers and mentors

PROGRAM ELIGIBILITY:

- Rising 9th, 10th, and 11th Graders // Black male youth are encouraged to apply
- No programming skills required

Contact: Troy Kyles troy@hiddengeniusproject.org

Maker Faire Philadelphia

<https://philly.makerfaire.com/>

Maker Faire Philadelphia is a family-friendly showcase of invention, creativity and resourcefulness, and a celebration of the Maker Movement. It's a place where people show what they are making and share what they are learning. Of all ages and backgrounds, Makers range from tech enthusiasts to crafters to homesteaders to scientists to garage tinkerers. Our next Maker Faire Philadelphia will be at Cherry Street Pier + Race Street Pier on Sunday, April 19, 2026. Admission is free with a very optional donation. Maker Faires happen in over 40 countries each year, and we are proud to be part of this global network.

Contact: Emily Silverman emily@phillymakerfaire.com

Pennsylvania Science Teachers Association (PSTA)

<https://www.pascience.org/>

The Pennsylvania Science Teachers Association is the home of science education leaders in PA. We support science education and educators by offering professional development (including an annual conference), providing resources on latest best practices in science education, and connecting science educators to one another.

Contact: Dylan Fedell dfedell@palisadessd.org

Philadelphia Regional Institute for STEM Educators (PRISE)

The Philadelphia Regional Institute for STEM Educators (PRISE) will build lasting synergies among institutions of higher education and other STEM education stakeholders in the Philadelphia region that will strengthen all aspects of the STEM teacher pathway: engagement, recruitment, preparation, induction, and ongoing professional development and growth throughout a teacher's career in ways that no individual organization would be able to achieve alone.

<https://prisephilly.org/>

Contact: Victor Donnay info@prisephilly.org

Philadelphia Robotics Coalition

<https://roboticscoalition.org/>

Philadelphia Robotics Coalition (PRC) provides high-quality robotics programming at K-8 schools, organizations, and events creating pathways for students to pursue college, careers, and workforce development opportunities in the Science, Technology, Engineering, Arts, AI, and Mathematics (STEAM) sector.

Contact: Dia Jones dia@roboticscoalition.org

Philadelphia STEM Ecosystem

<https://philastemeco.org>

The Philadelphia STEM Ecosystem is a network of collaborators that are actively engaged and participate in local STEM Education efforts.

Contact: Betsy Pane spayne@philaedfund.org

The POGIL Project

<https://pogil.org/>

POGIL is an acronym for Process Oriented Guided Inquiry Learning. The POGIL Project aims to improve teaching and learning by fostering an inclusive, transformative community of reflective educators who design, implement, assess, and study learner-centered environments.

Contact: Rick Moog rmoog@fandm.edu

Saint Joseph's University School of Education and Human Development

<https://www.sju.edu/school-education-human-development>

The School of Education and Human Development aspires to prepare current and future students to become exemplary educators and behavioral health professionals.

Contact: Stacy Olitsky solitsky@sju.edu

TUteach at Temple University

<http://stem.cst.temple.edu/tuteach.html>

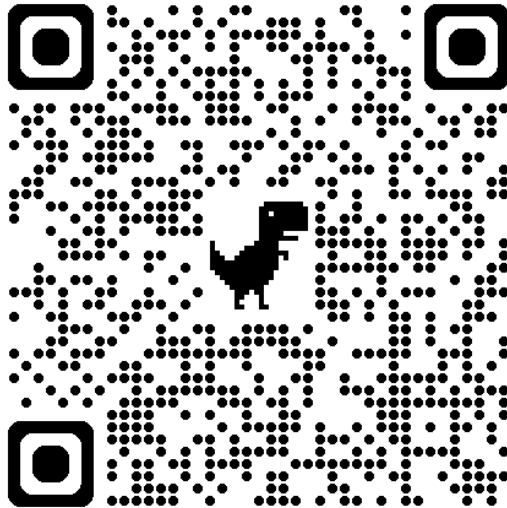
We recruit and train math & science majors to be secondary teachers of math & science.

Contact: Herb Green herbgreen@temple.edu

Conference Feedback Survey

Thank you for participating at this year's PRISE STEM Educator conference!

[Click here to take the survey](#)

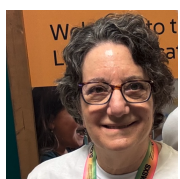


Conference Presenters / Panelists



Almas Akinyi

Almas Akinyi is a 5th year high school biology and environmental science teacher at Olney High School. She graduated from Temple University with a B.S in Biology with Teaching. Currently, she instructs both general and ESL Biology, ensuring equitable access to rigorous STEM education for multilingual learners. Outside the classroom, Almas coaches crosscountry and girls basketball, supporting students' holistic development through teamwork, perseverance, and leadership. Her professional growth includes participation in multiple Research Experiences for Teachers (RETs) at the Drexel University and University of Pennsylvania, STEM pedagogical workshops, and agricultural research programs that strengthen real-world connections in the biology curriculum.



Paula Don

Paula Don began her career in education in Los Angeles working as a bilingual teacher before moving to Philadelphia. She worked in the School District of Philadelphia for 35 years and held many titles: elementary classroom teacher, computer teacher, director of educational technology, and director of gifted and talented education. Today, Paula works as a Program Support consultant and curriculum developer with the Understanding the Urban Watershed program with the Fairmount Water Works. She is also part of the Seal of Alignment program with ISTE+ASCD and is an educational coach with LEGO Education. She earned her Master's in Educational/ Instructional Technology from the University of Southern California.



Victor Donnay

Victor Donnay is a Professor of Mathematics and Chair of the Department of Mathematics at Bryn Mawr College, where he holds the William Kenan, Jr. Chair. His mathematical research focuses on chaotic dynamical systems. He is deeply engaged in supporting K-16 STEM educators and prospective STEM teachers in the region and serves as the Founding Director of the Philadelphia Regional Institute for STEM Educators (PRISE), based at Saint Joseph's University. At Bryn Mawr, Victor works across several areas of interest, including connecting mathematics and science education with issues of sustainability and climate change—often guiding students in developing sustainability projects in collaboration with community organizations. He is also dedicated to sharing the beauty and excitement of mathematics with general audiences and to teaching a wide range of courses while supervising student research.



Felicea Fennell

Felicea Fennell is a 3rd grade Math, Science, and Social Studies teacher at Howe Academic Plus in the School District of Philadelphia. As the Science Lead, Math Facilitator, and a member of the Superintendent's Advisory Board and Building Committee, she is dedicated to creating engaging, hands-on STEM experiences for her students. Felicea is passionate about building a love of learning and witnessing the spark in students' eyes when they master challenging concepts. Her enthusiasm, leadership, and humor make her a valued educator and advocate for student growth. *Fun fact: Felicea is her own comedian!*



Herb Green, Ed.D.

Dr. Herbert Green is an Adjunct Associate Professor in the TUteach Program at Temple University, where he teaches future STEM educators. He holds an Ed.D. in Mathematics Education, and has extensive experience in STEM education as a School District of Phila. middle and high school teacher, teacher supervisor in all academic subjects, District-wide curriculum developer, school- and District-wide

professional development creator and leader, and teacher induction instructor. Dr. Green is also the Faculty Advisor for the National Council of Teachers of Mathematics (NCTM) Student Affiliate at Temple University's TUTEACH Program and serves on the Professional Development Committee for the Philadelphia Regional Institute for STEM Educators (PRISE) and is an instructor for the New Teacher Support Program (NTSP). His extensive work in teacher development and STEM outreach in Philadelphia schools has equipped him with in-depth knowledge of local educational structures, challenges, and opportunities. Dr. Green's research focuses on improving equity in STEM education and increasing the representation of women and other underrepresented groups in mathematics and science fields.



Marlene Hilkwitz, M.Ed.

With over five decades dedicated to advancing STEM education, Marlene began her career as a high school biology teacher and has served in four area school districts—Centennial, Philadelphia, Wallingford-Swarthmore, and Penn-Delco. Throughout her distinguished career, she has held numerous leadership positions. At the school level, she served as Science Department Head; at the district level, as Science Curriculum Supervisor and Instructional Effectiveness Intervention Administrator; and at the national level, as the Philadelphia Center Director for Project 2061, a STEM education reform initiative of the American Association for the Advancement of Science (AAAS). Her expertise in curriculum design, assessment, and inquiry-based learning has been widely shared through her mentorship, professional development, and consulting, including work with educators at NASA and the National Renewable Energy Laboratory (NREL).

A passionate mentor, Marlene began supporting pre-service teacher education early in her career, serving as a cooperating and mentor teacher for numerous student teachers. She consistently sought external grants and enrichment opportunities to extend classroom learning and deepen student engagement. Deeply committed to lifelong professional growth, Marlene remains active in professional development both as a participant and as a facilitator. Following her retirement from the School District of Philadelphia, she joined Temple University as faculty in the TUTEACH program and later served at Drexel University with the DragonsTeach program. She has been an integral part of the Philadelphia Regional Institute for STEM Educators (PRISE) since its inception, contributing as a program facilitator for the Philadelphia Regional Noyce Partnership–Scholars Program, the New Teacher Support Program, and Understanding STEM Teaching through Integrated Context in Everyday Life.



Angeline Kamara

Angeline Kamara, or Coach Angie, is a proud Afro-Latina from Silver Spring, MD, dedicated to uplifting her community and inspiring young women through sports and education. She earned her degree in Health and Fitness Management from Washington Adventist University, where she began her coaching career with the women's basketball team. After winning an award in a marketing bootcamp with the Washington Wizards, she went on to coach at 76ers and Nets summer camps. In 2022, she joined the G League champion Delaware Blue Coats as an Assistant Community Coach and continues to promote healthy lifestyles as a Healthy Hoops Coach with AmeriHealth Caritas.

Currently, Angeline serves as a Regional Outreach Coordinator at Learn Fresh, promoting educational sports programs with educators, leading community engagement initiatives, and representing the organization at major events and conferences nationwide. She is also the co-founder of CYBL, a youth development league in Delaware that empowers young athletes on and off the court.

**Daniel Katz**

Originally from Lansdale, PA, Daniel Katz is a sophomore at the University of Pennsylvania, majoring in mathematics and minoring in urban education. He is the Pre-Professional chair of Aspiring Educators at Penn, a club for undergraduate students interested in careers in education. Additionally, he is a research assistant at Penn GSE and a Civic Scholar, integrating academic interests with community engagement and social justice. His interest in teaching stems from his 15 years of martial arts training, including the past five as an instructor.

**Selvi Kara, Ph.D.**

Selvi Kara is a Turkish mathematician and Assistant Professor of Mathematics at Bryn Mawr College. She is a first-generation college graduate and the first in her family to earn a Ph.D. (Tulane University). Her research is in combinatorial commutative algebra, where she focuses on translating abstract algebraic ideas into accessible ones through the language of graph theory. She is also the co-founder of *Meet a Mathematician*, a video-based outreach project that highlights mathematicians from diverse backgrounds and makes their stories accessible to students and educators. Supported by a National Science Foundation (NSF) LEAPS-MPS award, her work bridges research and education by presenting mathematics as a human, creative, and community-connected pursuit.

**Aisha Kittrell**

Aisha Kittrell is a passionate STEM prep teacher in the School District of Philadelphia and the creator of the Medical Explorers after-school program. A graduate of Lincoln University, she continued her studies at Cabrini and Arcadia Universities. She serves as Science Champion and Lead at her school, coordinates La Salle University's STEM summer program, and has presented for AFT, the STEM Educators Conference, and various educational organizations. A recipient of the 2024 Lindback Award through the School District of Philadelphia and Rhoer Advisor of the Year honors. Aisha believes every student is enough—and that no goal is too far from their grasp.'

**Valerie Klein, Ph.D.**

Valerie Klein is an Associate Clinical Professor at Drexel University's School of Education and serves as Program Director for its undergraduate and graduate Teacher Education Programs. Her work centers on strengthening the teacher pipeline. Recently, her work has focused on securing grant funding from the National Center for Teacher Residencies and the William Penn Foundation to expand Drexel's teacher residency partnerships with the School District of Philadelphia and local schools. Valerie's research and professional interests focus on advancing teacher education as well as professional learning in mathematics—particularly in online settings—to help teachers create classroom cultures where student thinking is a valued centerpiece and all learners are empowered to engage meaningfully in mathematics.

**Rebecca Lehr**

Rebecca Lehr is the Senior Director of Programs and Professional Learning at the TGR Learning Lab. She is deeply committed to empowering educators to better prepare students for success. With extensive experience in education, Rebecca has served as an elementary educator, instructional math coach, and education program officer, bringing a comprehensive perspective to her leadership in professional learning and program development.

**Sa Liu**

Dr. Sa Liu is an Assistant Professor in the Interactive Media program at Harrisburg University of Science and Technology. She holds a Ph.D. in Learning Technologies from the University of Texas at Austin, a master's degree in

educational technology, and a bachelor's degree in computer science. With a decade of research experience in learning and interactive media, her work spans areas such as artificial intelligence, virtual reality, and various emerging technologies. Her research has been cited over 600 times on Google Scholar.



Bob Lochel

Bob Lochel has served in public education for twenty-seven years, primarily as a high school mathematics teacher, with additional experience as an instructional coach. He has taught Advanced Placement (AP) Statistics for nearly two decades and currently serves as a table leader at the annual AP Statistics Exam Reading. In addition to being a Desmos Certified Presenter since 2017, Mr. Lochel has delivered presentations at national and regional conferences, including those hosted by the National Council of Teachers of Mathematics (NCTM), the International Society for Technology in Education (ISTE), and the Pennsylvania Council of Teachers of Mathematics (PCTM). He is also the current President of the Association of Teachers of Mathematics of Philadelphia and Vicinity (ATMOPAV), the Philadelphia-area affiliate of the NCTM.



Michael Matteo

Michael has been an educator with the School District of Philadelphia for 17 years, teaching every grade from second to eighth. He is currently a sixth grade Math, Science, and Engineering Elective teacher at Fanny Jackson Coppin in South Philadelphia. He has previously participated in programs for the Capital Area Institute for Math and Science at Penn State Harrisburg, Environmental Literacy and Sustainability Co-Creation Cohort for the Franklin Institute, and was named his school's Science Champion/Lead.



William McWatters, Ed.D.

Dr. William McWatters is a high school physics teacher at Octorara Area High School, where he founded and continues to serve as faculty adviser for Octorara's Physics Fight Club, a student team that has earned four consecutive national championships in the International Young Physicists Tournament. He serves on the board of the United States International Young Physicist Team (USIYPT) and has coached Team USA at international competitions in Warsaw, Budapest, Singapore, Beijing, and Lund, Sweden.

Dr. McWatters is deeply committed to fostering scientific inquiry and collaboration among young physicists. His dedication to education has been recognized through his selection as a Pennsylvania Teacher of the Year finalist and as a 2020 recipient of the Presidential Award for Excellence in Mathematics and Science Teaching (PAEMST). PAEMST, the highest honor bestowed by the U.S. government for K-12 educators, recognizes teachers with exceptional STEM content knowledge and the ability to motivate and empower students for success in these fields. As Octorara's science department chair, Dr. McWatters helped establish a dual-enrollment physics program with the University of the Sciences in Philadelphia and currently serves as an adjunct professor of physics at Immaculata University.

At this workshop, Dr. McWatters will introduce the United States International Young Physicist Team, sharing insights into the program's structure, opportunities for student involvement, and ways educators can participate in this unique global research and debate experience.

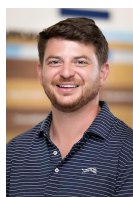


F. Joseph Merlino, M.Ed.

F. Joseph Merlino is president of *The 21st Century Partnership for STEM Education*, a non-profit research and action organization located in Wayne, Pennsylvania, and in Cairo, Egypt. For the past 40 years, he has been a teacher and principal investigator or director of many National Science Foundation, U.S Department of Education, and U.S. Agency for International Development projects impacting thousands

of secondary math and science teachers and hundreds of schools. For the past 13 years, he supervised the development of a new integrated curriculum and assessment system for 21 new model STEM high schools based on Egypt's 11 Grand Challenges. In addition, he has directed a new seven-year project to develop five new STEM teacher preparation programs with 180 new courses for five large Egyptian universities.

He has a BA in Psychology from the University of Rochester and an MA in Education from Arcadia University. He did doctoral studies in cognitive developmental psychology at Catholic University. He and his colleague, Dr. Deborah Pomeroy, have just written a new book based on their decades of experience. The book is entitled *New Era-New Urgency: The Case for Repurposing Education*. It is published by Lexington Books, an imprint of Rowman & Littlefield, an academic publisher. (On June 1, 2025, Rowman and Littlefield's academic titles were acquired by Bloomsbury Books, UK.



Adam Mesewicz

Adam Mesewicz is the Director of Career Connected Learning Programs for the TGR Foundation, where he empowers students from under-resourced communities to explore and pursue careers in STEM. A former math and engineering teacher, Adam has dedicated his career to bridging opportunity gaps in education through innovative, hands-on learning experiences. Driven by his belief in equitable access to STEM education, Adam continues to inspire the next generation of innovators and problem-solvers through programs that connect classroom learning with future career opportunities.



Paula Miller

Paula Miller's passion for STEM and education, ignited during her high school years, laid the foundation that inspired her decision to pursue a career in teaching. Paula started her teaching journey in Northern Ireland, but a desire to travel and an unexpected opportunity led her to the United States. After several years of teaching in Dallas, Texas, she found her professional home in Philadelphia.

The US education system provided Paula with opportunities to grow as a STEM educator through diverse STEM initiatives. She has been an active participant in programs such as Educators for Sustainability, USTRIVE (Understanding STEM Through Integrated Contexts in Everyday Life), and the AAPT SEPS (American Association of Physics Teachers Southeastern Section). Paula is also deeply involved with the NEED (National Energy Education Development) project, where she has strengthened her ability to integrate the concept of energy into her teaching practices and to facilitate educators' NEED workshops.

Recently certified as a Computer Science teacher through the highly regarded CSinPA program, Paula has been recognized with several prestigious awards: the 1994 Outstanding Science Teacher Meritorious Achievement Award presented by the Pennsylvania Society of Professional Engineers; the 2013 Lindback Award for Distinguished Teaching; and the 2024 Rob Thomas Excellence in Energy Award (NEED). Throughout her career, Paula remains deeply grateful to all the students she has had the honor of teaching. Their success and growth continue to be the driving force behind her educational journey and her ongoing inspiration to be the best teacher possible.



Rick Moog, Ph.D.

Rick Moog received an A.B. in chemistry from Williams College and a Ph.D. in physical chemistry from Stanford University. He is Professor of Chemistry, *emeritus* at Franklin & Marshall College and serves as the Executive Director of The POGIL Project, a non-profit organization that supports the implementation of student-centered, team-based learning experiences in STEM courses at the secondary and post-secondary levels.. Rick began using a guided inquiry approach

to teaching chemistry in 1994, and is the co-author of POGIL materials for general chemistry and physical chemistry. In addition, he has developed guided inquiry experiments for use in the general chemistry laboratory. He is a Fellow of the American Chemical Society and is the 2016 recipient of the George C. Pimentel Award in Chemical Education from the American Chemical Society. Along with his late colleagues Jim Spencer and Frank Creegan, Rick was also the co-recipient of the 2015 James Flack Norris Award for Outstanding Achievement in the Teaching of Chemistry from the Northeast Section of the American Chemical Society. He has coauthored several journal articles and book chapters concerning POGIL, and is the coeditor of the ACS Symposium Series volume: *Process Oriented Guided Inquiry Learning*.



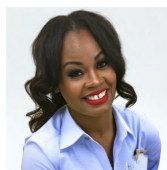
Stacy Olitsky, Ph.D.

Stacy Olitsky is an Associate Professor in the Department of Teacher Education at Saint Joseph's University. She teaches courses in science education and the sociological foundations of education. Her research interests include applying sociological theory and research methods to the study of science education, the relationship between identity and learning, social and emotional engagement in science classrooms, STEM teacher retention in high-need schools, and collaborations between science and math faculty members and K-12 teachers.



Christian Otteson

Christian is an undergraduate at SJU majoring in physics and quantitative economics, with a minor in mathematics. Over the summer, Christian worked at the Physics Wonder Girls Camp alongside Jack and Dr. Ramos, marking their first experience with the program. Christian also participated in the SJU Summer Scholars Program, conducting undergraduate research. Currently, Christian serves as a teaching assistant for three physics laboratories—two for Physics 101 and one for astronomy. Christian is passionate about physics and dedicated to sharing that enthusiasm for the subject through teaching and mentorship.



Shirley L. Posey

Shirley Elle Posey is a visionary and transformational leader in STEM education, neuroscience, and sustainability whose work bridges research, innovation, and culture to empower the next generation of global problem-solvers. An award-winning STEM educator and sustainability advocate, she has been featured on CBS, ABC, Fox 29, NBC 10, and *The Philadelphia Inquirer* for her neuroscience- STEM based educational practices, and has served as a featured speaker at the University of Pennsylvania's Environmental Initiatives and Villanova University's "21 Days of Higher Dimensions of Learning." A Scaling Up STEM Fellow with the National Science Teaching Association and Northrop Grumman, and a NASA's CCRI STEM Educator, she integrates equity-driven innovation across education systems. Recognized nationally and internationally, she has received the Madam C.J. Walker Educator of the Year, Philadelphia Eagles & Nouryon Teacher of the Year, Epic Educator Award at the Model Schools Conference, and a citation from Keta, Ghana for her contributions to STEM. Featured by TEDx, the U.S. EPA, and the Global Water Alliance—and showcased by the Philadelphia Science History Museum as one of the "Superheroes Saving the Planet"—Posey also serves on the boards of the Global Water Alliance and United Nations-PA. As Founder and CEO of NeuroElite STEM, she leads an innovative program that merges neuroscience, technology, and cultural inclusion to develop young minds who will engineer sustainable, equitable futures across communities from Philadelphia to Ghana, Kenya, and beyond.



Roberto Ramos, Ph.D.

Dr. Roberto Ramos is Professor of Physics at SJU and Founder/Director of the Physics Wonder Girls Program - a free STEM program for middle and high school girls, with a focus on renewable energy. Dr. Ramos teaches SJU's "Intro to Renewable Energy" course. He received the Christian R. and Mary F. Lindback Award for Distinguished Teaching in 2023 and won 2nd Place in the

2021 Greater Philadelphia Social Innovators Awards in Community Impact. His research is in ultra-low temperature physics, superconductivity, and quantum computing.

This conference workshop is funded by Constellation.



Greer Richardson, Ph.D.

Greer is the Associate Director of the Philadelphia Regional Institute for STEM Educators (PRISE), based at Saint Joseph's University. Greer holds a BA in Psychology from the University of Pennsylvania, an M.Ed. in Educational Psychology from Rutgers University, and a Ph.D. in Educational Psychology from Temple University. She is a former elementary school teacher dedicated to advancing equity in STEM education. For much of her career, she has supported the recruitment, retention, and development of diverse STEM educators across the Philadelphia region. Currently, Greer serves as Co-Chair of the Philadelphia Regional STEM Teacher Talent Development Coalition, an initiative aimed at increasing the number of high school and college students who pursue careers in STEM teaching. Greer's areas of expertise include educational psychology, STEM teacher development, and instructional coaching.



Jack Schiavo

Jack Schiavo is a third year undergraduate physics and quantitative economics student at Saint Joseph's University. He is currently the president of the university's Society of Physics Students chapter and has worked at the Physics Wonder Girls Camp for two summers, under the guidance of Dr. Roberto Ramos.



Ellen Schultz

Since 2004, Ellen Freedman Schultz has developed and managed environmental education programs related to water quality, watershed management, and the history of Philadelphia's municipal water system for the Fairmount Water Works Interpretive Center. She currently leads their watershed curriculum project "Understanding the Urban Watershed" (Grades 4 through 9th) in partnership with the School District of Philadelphia. Since 2015, she has served as a member of the Alliance for Watershed Education Steering Committee and is currently a Co-chair of Education for Sustainability Committee of the School District of Philadelphia's GreenFutures Plan for Sustainability and the PA Environmental Literacy Steering Committee.



Dominique Thomas, MPH

Dominique Thomas is a Philadelphia native, where she attended Paul Robeson High School for Human Services and earned a Bachelor of Arts degree in Psychology from Temple University. Dominique, recently earned her Masters of Public Health from Drexel University. She is a Manager of Social Justice Programs at The Academy of Natural Sciences of Drexel University. She works alongside Janai Keita and Kimberly Godfrey with the Women In Natural Sciences (WINS), which she is also a proud 2012 Alumna. Dominique holds continued gratitude to the program and often shares how becoming a WINS girl unlocked her continued exploration of new places, engaging in storytelling to learn about people's journeys and passion for environmental justice. Dominique also believes mentorship to be a fundamental aspect of a young person's journey. She often seeks opportunities to utilize trauma-informed practices to positively impact young people and encourage positive decision-making through youth advocacy.



Jessica M. Vaden, Ph.D.

Dr. Jessica Vaden (she series) is the Civic Science Fellow in Science and Education at The Franklin Institute (TFI). In 2024, she defended her thesis titled "Exploring and Advancing Inclusivity in Engineering Education across Academic Communities" in Civil and Environmental Engineering at the University of

Pittsburgh. Her research took an interdisciplinary approach combining sustainable engineering, environmental justice, and inclusive engineering education. Now as a Civic Science Fellow at TFI, Jessica has worked on co-creating educator resources and tools with teachers to build capacity in using a place-based civic science approach to climate and environmental science education. She has also had the opportunity to work with other departments at TFI including exhibit development and youth programs and has plans to continue her career in the informal STEM education space.



Philadelphia Regional Institute for STEM Educators (PRISE)

Supporting STEM Teachers in the Philadelphia Region

PRISEPhilly.org

PRISE builds on 10+ years of partnership among 10 institutions of higher education in the greater Philadelphia region: Arcadia University, Bryn Mawr/Haverford Colleges, Community College of Philadelphia, Drexel University, La Salle University, Saint Joseph's University, Temple University, University of Pennsylvania, Villanova University and West Chester University, as well as regional STEM stakeholders including The Philadelphia Education Fund (PEF) and the School District of Philadelphia. This partnership grew out of common efforts to implement the National Science Foundation Noyce Scholarship program.

We recognized that we can do more together than we could do individually to ensure equitable, high quality STEM teaching in the Philadelphia region. All students in the Philadelphia region should have equitable access to high-quality STEM instruction. Supporting both the recruitment, retention and ongoing development of diverse and highly effective teachers is a critical element of supporting STEM education in the region.

The Philadelphia Regional STEM Teacher Talent Development Coalition

The Philadelphia Regional Institute for STEM Educators (PRISE) at Saint Joseph's University (SJU) will establish and lead **The Philadelphia Regional STEM Teacher Talent Development Coalition**. The Coalition will consist of science, technology, engineering, mathematics and computer science stakeholders from K-12, higher education, government, and out-of-school time (OST)/community organizations.

The Coalition will strengthen the STEM teacher pipeline to increase the number of diverse STEM educators serving Philadelphia students. It will address two recommendations from the report, *Citywide Strategy for Diverse and High-Quality Teachers*: a) articulate pathways to teaching and b) facilitate early exposure to teaching for two identified high priority groups namely high school and college students.

The Coalition will conduct yearlong stakeholder convenings to develop a range of regional cross-sector partnerships and initiatives to address STEM teacher-specific challenges. The Coalition will gather data on regional STEM teacher diversity, surface financial support for pathway exploration, identify regional challenges, create a template for local and regional opportunities to diversify the STEM teacher pipeline, and develop subgroups to expand the Coalition and continue its work beyond the period of the grant.

PRISE and the Department of Education at SJU will operate as the lead partner in establishing the Coalition as a Workgroup of Philadelphia STEM Ecosystem at the Philadelphia Education Fund. The Region 4 Comprehensive Center will provide capacity-building and technical assistance. The Mayor's Office of Education, the School District of Philadelphia, the Philadelphia Workforce Development Board, and OST/community-based STEM organizations are tasked with fostering area partnerships and aligning organizational priorities to support STEM teacher talent development. The Coalition work products will include:

- A STEM landscape analysis will surface promising practices, challenges, and gaps in the STEM teacher pipeline. The analysis will ground the work of the Coalition to identify practical goals and solutions to address challenges and to scale promising practices.
- Proposals for funding to support (1) high school and college student early teaching experiences and (2) STEM teacher certification pathways, that are aligned with Coalition proposed goals and solutions
- Work agreements among higher educations, workforce, K-12s, and OST/community stakeholders to meet the goals set forth by the Coalition
- Established subgroups to manifest the goals of the Coalition beyond the grant period

For more information about the coalition, contact Project Director, Greer Richardson, grichard@sju.edu. For more information about PRISE go to <https://prisephilly.org/>. The Coalition is funded by the PA Department of Education Aspiring 2 Educate grant.