



MYAMAZINGFUTURE

## Exploring and Experiencing Science and Technology Workshop

April 9-10, 2025





# Welcome

## Sunshine W. Shepherd

*K-12 STEM Education Coordinator, Idaho National Laboratory*

Sunshine is the K-12 STEM Education coordinator at Idaho National Laboratory. She is a citizen of the Shoshone-Bannock Tribes and the mother to three young children. She works closely to provide outreach and educational opportunities to schools and community organizations. She leads various programming including STEM Scholars and sits on a variety of boards and steering committees. She joined INL in October 2021. She earned her bachelor's in Native American Indigenous studies from Fort Lewis College in Durango, Colorado. She earned her Master of Public Administration from Idaho State University and is working toward a doctorate in education from Idaho State University.



## Ryan Hansen

*K-12 STEM Outreach, Idaho National Laboratory*

Ryan is passionate about career technical education (CTE) and STEM outreach. With 15 years of experience as a high school educator, Ryan has cultivated a deep understanding of the educational landscape and the importance of engaging students in CTE and STEM fields. In 2018, Ryan joined Idaho National Laboratory's Communications team with the Facilities and Site Services division. Recently, he transitioned to the STEM team, where he continues to make a significant impact by inspiring the next generation of innovators and scientists. Ryan holds a Bachelor's degree in Secondary Education with an emphasis in Spanish and Communications from Idaho State University. He furthered his education by earning a Master's degree in Educational Technology from Walden University, equipping him with the skills to integrate technology effectively into educational initiatives. With his extensive background and unwavering commitment to STEM education, Ryan Hansen is excited to represent Idaho National Laboratory to Idaho's K-12 students.



## Cait McGraw

*K-12 STEM Education and Outreach Specialist, Idaho National Laboratory*

Cait McGraw is the K-12 STEM Education and Outreach Specialist at Idaho National Laboratory, where she develops and implements programs that cultivate critical thinking, problem-solving skills and workforce readiness in future STEM leaders. With expertise in scientific research, education and workforce development, she collaborates with educators, industry partners and community organizations to align STEM initiatives with educational and industry needs. Cait holds a B.S. in Biology from West Virginia University and an M.S. in Natural Resources with a focus on experiential environmental education from the University of Idaho. Her passion for science, place-based experiential learning and the outdoors drives her commitment to fostering STEM identity in young minds, helping students connect with real-world applications and career pathways.



# Keynote Speaker

## J'Tia Hart, PhD

*N&HS Nuclear Nonproliferation Director, Idaho National Laboratory*

Dr. J'Tia Hart is the director of Idaho National Laboratory's Nuclear Nonproliferation Division, leading a team of 60 scientists, engineers and researchers. She previously served as the chief science officer for INL's National and Homeland Security directorate, focusing on enhancing the research environment and developing scientists and engineers. Dr. Hart has worked within the DOE complex at INL, Argonne National Laboratory and DOE headquarters, where she led multi-laboratory teams and served as an executive intelligence briefer. She holds a bachelor's degree in industrial engineering from Florida State University and advanced degrees in nuclear engineering from the University of Illinois at Urbana Champaign. Dr. Hart is an advocate for women and underrepresented minorities in STEM, creator of the YouTube series STEM Queens, and an Ambassador for STEM outreach with the American Association for the Advancement of Science.

# Day 1 Workshop Schedule

8:00 - 8:15

Student badging and registration

8:15 - 8:45

Opening remarks and welcome, Sunshine Shepherd, Ryan Hansen and Cait McGraw

Emergency Contact: Sunshine Shepherd (970) 442-1844

## Student Groups

	1	2	3	4	5	6
8:45	EIL A-112	CAES CAVE	EIL C-303	CAES Snake River	EIL A-111	EIL A-113
9:45						
10:00	CAES Snake River	EIL A-110	EIL A-112	CAES CAVE	EIL C-303	CAES Auditorium
11:00	Restroom break, go to EIL large meeting room for lunch					
11:15	Keynote Speaker: J'Tia Hart, Mentor Cafe					
12:00						
12:15	CAES Auditorium	EIL Lobby	CAES Snake River	EIL A-110	EIL A-112	CAES CAVE
1:15						
1:30	CAES TETON	EIL C-203	CAES Gallery	CAES Auditorium	EIL Lobby	CAES Snake River
2:30						
2:45	EIL A-110	EIL B-207	EIL A-113	EIL A-114	CAES TETON	EIL C-203
4:00	Wrap-up and Goodbye					

## Student Groups

	7	8	9	10	11	12
8:45	EIL A-114	CAES TETON	EIL C-203	CAES Gallery	CAES Auditorium	EIL Lobby
9:45						
10:00	EIL A-111	EIL A-113	EIL A-114	CAES TETON	EIL C-203	CAES Gallery
11:00	Restroom break, go to EIL large meeting room for lunch					
11:15	Keynote Speaker: J'Tia Hart, Mentor Cafe					
12:00						
12:15	EIL C-303	EIL C-203	EIL A-111	EIL B-207	EIL A-113	EIL A-114
1:15						
1:30	EIL A-110	EIL A-112	CAES CAVE	EIL C-303	EIL B-207	EIL A-111
2:30						
2:45	CAES Gallery	CAES Auditorium	EIL Lobby	CAES Snake River	EIL A-112	CAES CAVE
4:00	Wrap-up and Goodbye					



Restroom break, evaluations, transition to next workshop

CAES Auditorium | Project Management

CAES CAVE | Fun with Visualization

CAES Gallery | The Phenomenal Forces of Physics

CAES Snake River | Solar Electric Cooking for Africa

CAES TETON | DNA Isolation from Strawberries

EIL A-110 | Environmental at INL

EIL A-111 | Space Batteries

EIL A-112 | Protecting Things that Matter

EIL A-113 | Radiation and Life

EIL A-114 | Earthquake Challenge

EIL B-207 | Human Factors

EIL C-203 | Simulation for All

EIL C-303 | Mechanical Engineering is Dynamic

EIL Lobby | Atomic Inspector

# Day 2 Workshop Schedule

8:00 - 8:15

Student badging and registration

8:15 - 8:45

Opening remarks and welcome, Sunshine Shepherd, Ryan Hansen and Cait McGraw

Emergency Contact: Sunshine Shepherd (970) 442-1844

## Student Groups

	1	2	3	4	5	6
8:45	EIL A-112	CAES CAVE	ESL A-104/106	CAES Snake River	EIL A-111	EIL A-113
9:45						
10:00	CAES Snake River	EIL A-110	EIL A-112	CAES CAVE	ESL A-104/106	CAES Auditorium
11:00			Restroom break, go to EIL large meeting room for lunch			
11:15			Keynote Speaker: J'Tia Hart, Mentor Cafe			
12:00						
12:15	CAES Auditorium	EIL Lobby	CAES Snake River	EIL A-110	EIL A-112	CAES CAVE
1:15						
1:30	CAES TETON	EIL C-303	CAES Gallery	CAES Auditorium	EIL Lobby	CAES Snake River
2:30						
2:45	EIL A-110	ESL B-102	EIL A-113	EIL A-114	CAES TETON	EIL C-303
4:00			Wrap-up and Goodbye			

## Student Groups

	7	8	9	10	11	12
8:45	EIL A-114	CAES TETON	EIL C-303	CAES Gallery	CAES Auditorium	EIL Lobby
9:45						
10:00	EIL A-111	EIL A-113	EIL A-114	CAES TETON	EIL C-303	CAES Gallery
11:00			Restroom break, go to EIL large meeting room for lunch			
11:15			Keynote Speaker: J'Tia Hart, Mentor Cafe			
12:00						
12:15	ESL A-104/106	EIL C-303	EIL A-111	ESL B-102	EIL A-113	EIL A-114
1:15						
1:30	EIL A-110	EIL A-112	CAES CAVE	ESL A-104/106	ESL B-102	EIL A-111
2:30						
2:45	CAES Gallery	CAES Auditorium	EIL Lobby	CAES Snake River	EIL A-112	CAES CAVE
4:00			Wrap-up and Goodbye			



Restroom break, evaluations, transition to next workshop

**CAES Auditorium** | Project Management

**CAES CAVE** | Fun with Visualization

**CAES Gallery** | The Phenomenal Forces of Physics

**CAES Snake River** | Energy Generation Challenge

**CAES TETON** | Repairing the Past to Help the Future

**EIL A-110** | Environmental at INL

**EIL A-111** | Space Batteries

**EIL A-112** | Protecting Things that Matter

**EIL A-113** | Radiation and Life

**EIL A-114** | Earthquake Challenge

**EIL C-303** | Recycling and Critical Minerals

**EIL Lobby** | Atomic Inspector

**ESL A-104/106** | Mechanical Engineering is Dynamic

**ESL B-102** | Irrigation Modernization