

# 2024 Summit for Early Science Learning



**Saturday, August 24, 2024**  
**8:00 am - 3:30 pm**

**Explora &  
NM Museum of Natural  
History and Science**



# Agenda

**7:40-8:30**

Registration & Breakfast at Explora/Desayuno e Inscripción

**8:35 - 9:45**

Opening Session at NMMNHS/Plenaria inaugural y demostración de ciencia

**10:00-11:00**

Session 1 at Explora and NMMNHS/Sesion de grupo 1

**11:15-12:15**

Session 2 at Explora and NMMNHS/Sesion de grupo 2

**12:15-1:30**

Lunch at Explora/Almuerzo en Explora

**1:30-2:30**

Session 3 at Explora and NMMNHS/Sesion de grupo 3

**2:45-3:30**

Closing Session and Raffle at Explora/Sesión de clausura y sortero en Explora



# **Session 1 – 10:00 - 11:00 am**

## **Explora**

### **Math All Around Us - Janet Maes Gagliano & José Cano**

#### *Community Room (English)*

Math is all around us. Math can bring fun, exciting memories to mind for some people and challenging memories for others. How can we capture the fun and excitement? Come and explore the Big Ideas of Math from birth through preschool, using hands-on exploration and discussion, and bring back the fun!

### **Muddy, Messy, Memories: Using Mud for STEAM Learning - Jacquelyn Chasteen & Junoeli Reis**

#### *Lab Y (English)*

During this session participants will have a chance to explore the science behind mud while uncovering the many opportunities available for teaching and learning STEAM concepts, family engagement, and more. Join your peers to get messy (or not!) as you connect with your inner child and dig up new skills and strategies for engaging with children and their families.

### **Curiosidades infantiles - Claudia Alderete, Yolanda Macias Nieto, & Rosalia Morales**

#### *Lab Z (Español)*

En esta sesión los participantes podrán explorar 5 actividades de mesa para guiar la curiosidad de infantes y niños pequeños y extender su aprendizaje con un contenido apropiado a cada edad. Conversaremos sobre lo que implica promover el desarrollo de los sentidos y conceptos matemáticos en la primera infancia mientras conectamos nuestras conclusiones y descubrimientos con los dominios/componentes de las Guías de Aprendizaje Temprano.



# **Session 1 – 10:00 - 11:00 am**

## **Explora**

### **Using Natural Dye for Arts and Crafts - Victoria Lemus**

*Lab B (English)*

In this session we will use natural dye to change play dough. This is a fun sensory activity that explores color, change, and natural materials.

### **Create the STEM Resources You Need Using AI, It's Easy & Fun! - Jeff Gonyea**

*Theater (English)*

AI can be a powerful tool in creating your own STEM resources, lessons, and activities. Learn how in this interactive session--it's easy and fun!



# Session 1 – 10:00 - 11:00 am

## NM Museum of Natural History and Science (NMMNHS)

Guiding Active Bodies/Guia cuerpos activos - Andrew Martinez

*MPR1 (English with Spanish Interpretation/Ingles con interpretacion en Espanol)*

Finding a balance between supporting children's need to move and providing meaningful learning opportunities can be challenging. This interactive workshop provides early childhood educators with strategies to support children's gross motor skills that lay the foundations for learning. Educators will become familiar with various large and small group activities and environmental supports that engage creativity and foundational numeracy skills and exercise executive functioning skills.

Encontrar un equilibrio entre apoyar la necesidad de los niños de moverse y brindarles oportunidades de aprendizaje significativas puede ser un desafío. Este taller interactivo proporciona a los educadores de la primera infancia estrategias para apoyar las habilidades motoras gruesas de los niños que sientan las bases para el aprendizaje. Los educadores se familiarizarán con diversas actividades de grupos grandes y pequeños y apoyos ambientales que involucran la creatividad y las habilidades básicas de aritmética y ejercitan las habilidades del funcionamiento ejecutivo.

**Unlocking Childhood Potential: The Power of Nature and Connecting to Earth - Colin T.**

**Baugh & Travis McKenzie**

*Classroom 1 (English)*

Nature-based occupational therapy is an evidence-based practice that combines occupational therapy with nature to promote the development of essential skills in young children. It offers numerous benefits for children, including improved sensory integration, enhanced creativity and imagination (ideation), explore problem-solving skills, and encourage social and emotional learning. For educators, it can provide enhanced teaching strategies that will increase creative engagement while improving classroom management along with parent/caretaker participation. By embracing nature-based therapy, early childhood educators can provide a unique and empowering way to develop essential skills while fostering a love of learning that will last a lifetime.

# Session 1 – 10:00 - 11:00 am

## NM Museum of Natural History and Science (NMMNHS)

**Dramatic Science: Playful Learning in the Classroom - Noortje Nelissen & Maree Toscano**  
*Classroom 2 (English)*

Discover imaginative dramatic play activities that inspire kids to see themselves in exciting STEM careers. Learn hands-on strategies to make STEM fun and engaging for young learners!

**Abriendo Puertas/Opening Doors: Apoyando la participación familiar a través de STEAM - Jessica George & Lizzet Vargas**  
*Classroom 3 - (Español)*

En esta sesión reflexionaremos sobre la transición del mundo hacia la era digital, cómo se utiliza la tecnología en las aulas a lo largo de la vida diaria y la importancia de la alfabetización digital para todas las comunidades. Comprenderemos cuán relevante es la tecnología para alcanzar los objetivos educativos en nuestro mundo digital, ya que es necesaria para que los estudiantes completen las tareas escolares y para que los estudiantes y los padres accedan a las calificaciones y otros informes. También adquiriremos conocimientos sobre la importancia de las habilidades matemáticas tempranas. Reforzaremos este conocimiento jugando al Bingo/Lotería Abriendo Puertas/Opening Doors Count With Me. Diviértase con las oportunidades matemáticas que se encuentran en todas partes y todos los días al involucrar a los niños en el aprendizaje a través de juegos divertidos y rutinas diarias.



# **Session 2 – 11:15 am - 12:15 pm**

## **Explora**

### **Haciendo las matemáticas divertidas - José Cano & Janet Maes Gagliano**

*Community Room (Español)*

Las matemáticas a nuestro alrededor. Las matemáticas pueden traer a la mente recuerdos divertidos y emocionantes para algunas personas y recuerdos desafiantes para otras. ¿Cómo podemos capturar la diversión y la emoción? Ven a explorar las Grandes Ideas de las Matemáticas desde el nacimiento hasta la edad preescolar, utilizando la exploración práctica y el debate, ¡y recupera la diversión!

### **Recuerdos embarrados y desordenados: uso del barro para el aprendizaje STEAM - Junoeli Reis & Jacquelyn Chasteen**

*Lab Y (Español)*

Durante esta sesión, los participantes tendrán la oportunidad de explorar la ciencia detrás del barro mientras descubren las muchas oportunidades disponibles para enseñar y aprender conceptos STEAM, participación familiar y más. Únase a sus compañeros para ensuciarse (¡o no!) mientras se conecta con su niño interior y descubre nuevas habilidades y estrategias para interactuar con los niños y sus familias.



# **Session 2 – 11:15 am - 12:15 pm**

## **Explora**

### **Making Bread in a Reggio Classroom - Annika Nunn**

*Lab Z (English)*

We will be looking at the learning opportunities of making bread in the classroom, how it relates to math, science, and art, and how to bring families into the process! We will explore this through a demonstration, taste testing, and classroom examples.

### **Sensory Experiences with Infants and Toddlers - Kayla Villanueva**

*Lab B (English)*

Sensory experiences for infants and toddlers is a child's play! The presenter will take you through tried and true sensory activities on a budget that your younger students will love.

### **Lights Out! Exploring the “Glow” in Glow-in-the-Dark - Ian Schiefelbein & Jan Winslow**

*Theater (English)*

Join us on an illuminating journey as we explore the “glow” in glow-in-the dark! In this workshop, participants will explore the fascinating phenomenon of luminescence, or the emission of light without heat, and how it can be used to spark curiosity and wonder in early childhood settings. From glow-in-the-dark experiments to exploring bioluminescent organisms, our workshop encourages exploration, creativity, and scientific inquiry. Together, let's light up the imaginations of our future scientists!





# **Session 2 – 11:15 am - 12:15 pm**

## **NM Museum of Natural History and Science (NMMNHS)**

**Supporting Family Engagement Through STEAM -**

**Dawn Berry, PhD & Angela Redondo, PhD**

*MPR1 (English with Spanish Interpretation/Ingles con interpretacion en Espanol)*

In this interactive session, participants will learn ways to enrich young children's development by incorporating STEAM learning through the use of picture books with coordinating activities. Participants will explore hands-on, process and inquiry-based activities and leave with resources for immediate use.

En esta sesión interactiva, los participantes aprenderán formas de enriquecer el desarrollo de los niños pequeños incorporando el aprendizaje STEAM mediante el uso de libros ilustrados con actividades de coordinación. Los participantes explorarán actividades prácticas, basadas en procesos y en investigaciones y se llevarán recursos para uso inmediato.

**Breaking Barriers to Outdoor Education with a Benefit Mindset - Therese Baca-Radler, PhD**

*Classroom 1 (English)*

This workshop will focus on ways to establish outdoor learning environments that support foundations of interconnectedness and well-being for all, otherwise known as a benefit mindset. According to the National Association of Environmental Education, “an environmentally literate person, both individually and together with others, makes informed decisions concerning the environment; is willing to act on these decisions to improve the well-being of other individuals, societies, and the global environment; and participates in civic life” (2019). The idea of “coming together both individually and collectively with others” is not new to early childhood as much of our work is “all about me” and “all about my community.” Learning these concepts through discovery in the natural outside world has a lasting impact on our littles, and establishing an outdoor classroom is the perfect place to start supporting such concepts in our early childhood programs. In this presentation we will learn how to establish the outdoor learning spaces that already exist in our schools and how to plan opportunities for learning through discovery that support the development of environmental literacy and a benefit mindset.

# **Session 2 – 11:15 am - 12:15 pm**

## **NM Museum of Natural History and Science (NMMNHS)**

### **Cultivating Early Coding Skills - Noortje Nelissen & Maree Toscano**

#### *Classroom 2 (English)*

Discover practical strategies and hands-on activities to introduce foundational coding concepts to young children. Learn how to integrate coding into your curriculum, making learning fun and developmentally appropriate. Equip yourself with resources to foster a love for coding in your classroom.

### **Math Milestones: The Early Years - Andrew Martinez**

#### *Classroom 3 (English)*

This session puts the M in STEAM! This interactive workshop provides early childhood educators with different strategies to support children's skill growth as they lay foundations for learning mathematics. As math can be a very abstract concept, educators will become familiar with concept milestones related to math and techniques to support understandings that guide children to the next steps.



# Session 3 – 1:30 - 2:30 pm

## Explora

### City Explorers: Building Tomorrow's Urban Wonders - Maggie Ramirez, Ben Bachwartz-Lopez, & Adrian N. Carver

#### *Community Room (English)*

“City Explorers: Building Tomorrow’s Urban Wonders” is an engaging workshop designed to introduce early childhood educators to the concept of the built environment and its role in fostering learning and exploration among young children. Participants will explore practical tools and strategies to incorporate urban planning concepts into their curriculum, helping children understand and interact with their surroundings in meaningful ways. The session includes interactive activities, real-world examples, and a focus on creating safe, inclusive, and aesthetically stimulating environments. Join us as we explore how to build vibrant, livable communities starting from the classroom!”

### Parts of a Plant - Alisa Maestas

#### *Lab B (English)*

In this session we will explore the seven developmental areas with hands-on, natural materials by studying parts of the plant. These are lessons you can use in your classroom next week!

### La importancia del juego durante las primeras etapas - Laura Barriga

#### *Theater (Español)*

Incluso si es sólo durante una hora al día, el juego es una forma importante para que los cuidadores establezcan un vínculo con sus hijos. Especialmente en los primeros años, el juego es crucial para un desarrollo cognitivo y socioemocional positivo. Juntos exploraremos las muchas maneras en que podemos utilizar el juego para apoyar el aprendizaje de los niños en las primeras etapas.



# **Session 3 – 1:30 - 2:30 pm**

## **NM Museum of Natural History and Science (NMMNHS)**

**Introducing Young Children to Coding/Introduciendo a los niños pequeños a la codificación -  
Brandon Barney**

*MPR1 (English with Spanish Interpretation/Ingles con interpretacion en Espanol)*

Coding is an essential skill for young learners to acquire in today's digital age. It teaches them problem-solving, logic, and critical thinking, which are valuable for their future careers. Learn how to introduce your students--and yourself!--to the fundamentals of coding in this hands-on session.

La codificación es una habilidad esencial que los jóvenes estudiantes deben adquirir en la era digital actual. Les enseña resolución de problemas, lógica y pensamiento crítico, que son valiosos para sus futuras carreras. Aprenda cómo presentarles a sus estudiantes (¡y a usted mismo!) los fundamentos de la codificación en esta sesión práctica.

**Descubriendo resultados - Norma Ochoa & Rosario Barahora**

*Classroom 1 (Espanol)*

Uso adecuado de agua y lo necesario que es para el ser humano. Experimentos con agua. Explorando el resultado.



# **Session 3 – 1:30 - 2:30 pm**

## **NM Museum of Natural History and Science (NMMNHS)**

### **Sensational Senses - Melissa Price & Asis Gonzales**

*Classroom 2 (English)*

Together we will explore the theme of the five senses and engage in activities and centers to support development and learning. Learn how to use the five senses as a lens and enhance your curriculum and STEAM opportunities.

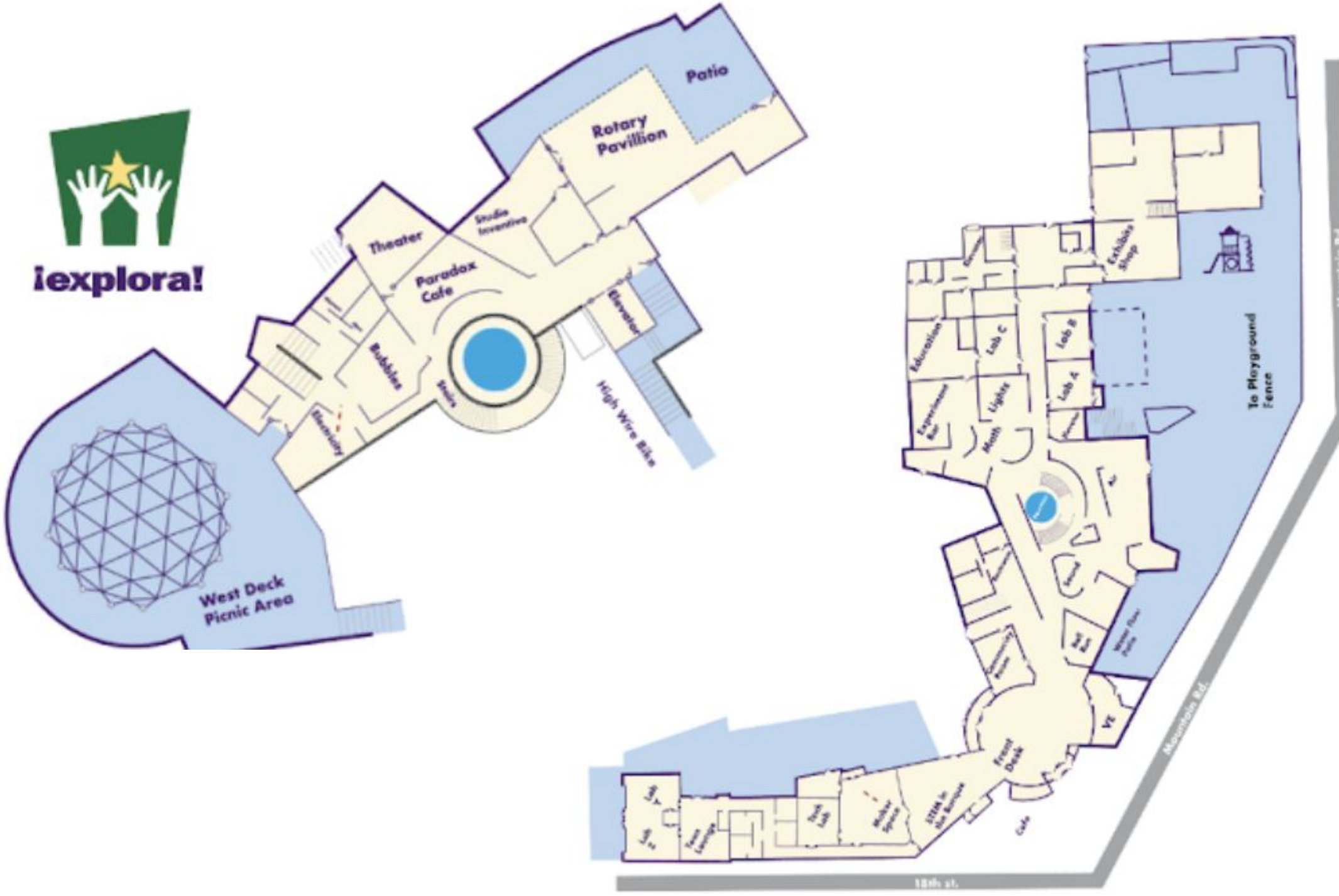
### **Nature Walk Alphabet Hunt - Christian Soto**

*Classroom 3 (English)*

In this outdoor workshop, participants will explore activities that weave literacy skills together with STEAM and outdoor learning concepts. You will leave this session with ideas you can use with your students on Monday!



# Maps



# Jacquelyn Chasteen

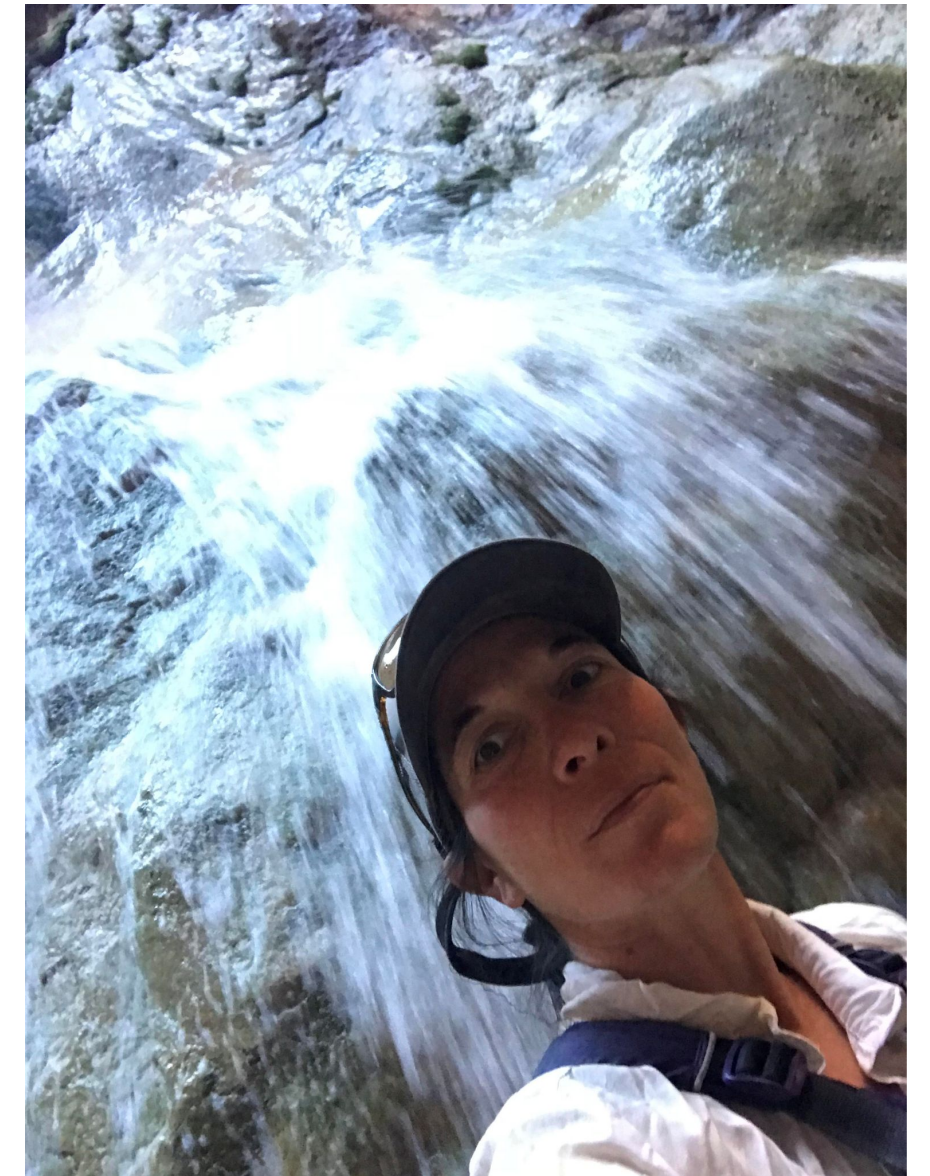
## Panel Moderator

*Jacquelyn Chasteen, MBAED, IMH-E, is a Program Manager on the Project ECHO education team, where she works on early childhood programs, projects, and initiatives. Jacquelyn's professional roots are in early childhood education, having worked in diverse early childhood roles before joining Project ECHO. Through her work, she has the privilege of developing spaces where early childhood professionals create community and engage in ongoing learning. Jacquelyn holds a Bachelor's in Early Childhood Multicultural Education, with a birth – 4-years concentration from NMHU and an MBA in Educational Leadership from UNM's Anderson School of Management. Outside of her work, Jacquelyn advocates on a variety of child-centered issues, spends time with her pets, and enjoys finding local coffee shops throughout her adventures.*



# Therese Baca-Radler, PhD

Therese Baca-Radler is a wife, a mother, a grandmother, a community leader, a scholar, and an avid outdoors person. She began her educational journey and career at Central New Mexico Community College, and later attended the University of New Mexico where she earned a dual Bachelor of Arts degree in General Education and Special Education and a Master of Arts degree in Bilingual Education with an emphasis in TESOL. She later went on to earn a PhD in Language, Literacy, and Sociocultural Studies with a focus on freshman transition programs. She has taught students from a wide range of ages and in a variety of contexts, including a first-grade dual language classroom (Spanish/English), a fifth-grade special education classroom, adult and basic education, teacher education, and various outdoor education programs with a focus on environmental literacy. She is currently the Director of Early Childhood Programs at Central New Mexico Community College and serves as a youth coach and mentor for different outdoor sports including cross-country/trail running, mountain biking, skiing and rafting. In her free time, she volunteers for Adaptive Sports New Mexico and the Albuquerque Mountain Rescue Council. She prides herself in the ability to use her skills for the greater good of her community and strives to build relationships that support sustainable community growth.





# Allison Martin

The outdoors has always been where I found my wings. From a young age, I thrived on place-based experiences that allowed me to connect deeply with the world around me—right in my own backyard. These experiences shaped my approach to learning and understanding, both as a child and now as an adult.

I hold an MA in Elementary Education with an emphasis on multicultural curriculum and instruction. Over the past 15+ years, I've dedicated myself to environmental education, serving in various capacities. My journey includes roles such as a Park Ranger at Petroglyph National Monument, Education Manager at Valencia Soil and Water Conservation District, and Program Director at Environmental Education of New Mexico (EENM).

Currently, I am the Co-Founder and Executive Director of TOTAL NM (Teaching Outdoors to All Learners), a nonprofit dedicated to supporting equitable outdoor learning spaces for all Pre-K through 12th-grade students across New Mexico. Our work focuses on creating spaces for relationship building, professional development, and resource sharing, ensuring that all students have access to the benefits of outdoor education.

These diverse experiences have enabled me to develop innovative strategies that empower educators to integrate environmental education into daily home and school life, reinforcing its importance in nurturing well-rounded, environmentally conscious learners.



# Vanessa Barela

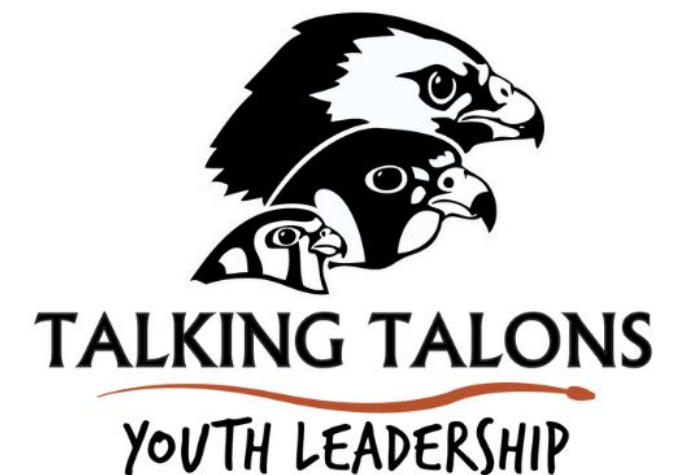
Vanessa (she/her) was born and raised in Albuquerque, New Mexico, where her family first ignited her love for nature. As a child, she spent much of her time fishing, camping, and hiking in the wilderness. While at New Mexico Tech, she started the Expeditionary Association, which took students on campus on hiking, backpacking, camping, rock climbing, and other outdoor trips. The club also began a gear library for the school, which still exists today.

Vanessa brings a wealth of educational experience working in classrooms, informal education learning environments, and in state-level administration. She uniquely understands how best to support youth, teachers, educators, and policymakers.

She has been in education since 2008 and has experience teaching students from preschool through college as a formal and informal educator in various positions focused on science and the environment. Her education includes degrees in Technical Writing, Environmental Engineering, Geology for Science Teachers and a master's in Curriculum and Instruction in Science. Vanessa has worked at the New Mexico Museum of Natural History and Science, Sandia Mountain Natural History Center, Cottonwood Montessori School as Environmental Education Director, and most recently as an Outdoor Learning Specialist at the New Mexico Public Education Department.

Vanessa is a 2023 NAAEE Civic and Environmental Education-Change Fellow, a Justice Outside Network for Network Leaders Fellow, serves on the Justice Outside Alumnx Advisory Board, Youth Conservation Corps PED Commissioner, and the GreenLatinos Urban Greening Advisory Board Member. She has previously served as the Secretary for Environmental Education New Mexico and currently volunteers as a leader with Latino Outdoors.

She enjoys spending time outdoors, bringing equitable practices into outdoor and environmental education, and spending time with her family.



# Science Demonstration

**Amanda Smith,  
Explora Educator**



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