CREATE Presenters at NSTA

Thursday, April 11

**Developing Inclusive, Three-Dimensional Science Communities in High School Chemistry Classrooms**

8:00 AM - 9:00 AM

Room: Sterling Studio 6, Hyatt Regency St. Louis at the Arch

Engage in activities used in two chemistry classrooms that integrate inclusive pedagogies with 3-D science instruction and examine lessons using a research-based framework.

Speakers:

Angela Kolonich, Director of Professional Learning, CREATE for STEM Institute, Michigan State University

Kristin Mayer, Teacher, East Kentwood High School

Michael Lim, Chemistry Teacher, Gardena High School

Session Topic: Physical Science

Session Type: Presentation

Thursday, April 11

**NARST-Sponsored Session: Getting Through the Modeling Cycle—Supporting Students in Sensemaking of Phenomena**

12:30 PM - 1:30 PM

Room: Grand Ballroom H, Hyatt Regency St. Louis at the Arch

Experience challenges that students face when engaging in an NGSS-focused model-based curriculum, and practice the types of scaffolds needed to support them in the task.

Speaker:

Consuelo Morales, Research Associate, CREATE for STEM Institute, Michigan State University

Session Topic: General Science Education

Session Type: Hands-On Workshop

Thursday, April 11

**Using Energy, Engineering, and Explanations in Elementary ML-PBL Science Classrooms**

3:30 PM - 4:30 PM

Room: Room 220, America’s Center

Come explore elementary Project-Based Learning materials using engineering practices and scientific explanations to experience three-dimensional teaching where children figure out ideas about energy transfer.

Note: This session focuses on implementing three-dimensional learning to increase student understanding and is targeted by level for intermediate attendees.

Speakers:

Samuel Severance, Research Coordinator / Graduate Research Assistant, University of Colorado Boulder

Emily Miller, Teacher, University of Wisconsin-Madison

Deborah Peek-Brown, Education Specialist, CREATE for STEM Institute, Michigan State University
Session Topic: Physical Science  
Session Type: Hands-On Workshop  
Track: Three-Dimensional Grand Slam

**Friday, April 12**

**Exploring Protein Structure and Function Using Interactions: A Free 3-D Science Curriculum for Grade 9 Physical Science**

8:00 AM - 9:00 AM  
Room: Regency F, Hyatt Regency St. Louis at the Arch  
Engage in activities that support the three-dimensional approach of “Interactions” curriculum, focusing on how temperature affects protein 3-D structure, function, and observable properties.

Speakers:

Joseph Krajcik, Director, CREATE for STEM Institute, Michigan State University  
Leonora Kaldaras, Research Assistant, CREATE for STEM Institute, Michigan State University

**SC-6: Introducing ML-PBL: NGSS- and CCSS-Focused Elementary Project-Based Learning Unit(s)***CANCELED***

10:30 AM - 5:00 PM  
Room: Laurel Salon B  
**SC-6 Is Canceled.**

Experience middle level project-based NGSS-focused curriculum/instructional units, vetted by Achieve, that engage students in making sense of phenomena and solving problems. Shared units include designing fun moving toys and an activity on squirrel adaptation. Bring a laptop or other device for accessing electronic resources, as well as a pencil or pen. Leave with handouts; access to electronic resources, and materials for experiencing two sample units. Plan for a 30-minute break for lunch on own.

Speakers:

Joseph Krajcik, Director, CREATE for STEM Institute, Michigan State University  
Susan Codere, Project Coordinator, CREATE for STEM Institute, Michigan State University  
Emily Miller, Teacher, University of Wisconsin-Madison  
Deborah Peek-Brown, Education Specialist, CREATE for STEM Institute, Michigan State University

**Saturday, April 13**

**Assessing 3-D Learning Using Multiple Literacies in Project-Based Learning Resources**

9:30 AM - 10:30 AM  
Room: Portland/Benton, Marriott St. Louis Grand  
Tailored for the intermediate level, explore Project-Based Learning materials for grades 3–5. Experience the power of three-dimensional learning and innovations in assessment with freely available open education resources.

Speakers:

Emily Miller, Teacher, University of Wisconsin-Madison  
Susan Codere, Project Coordinator, CREATE for STEM Institute, Michigan State University

Session Topic: General Science Education
Saturday, April 13

**NGSS from a Three-Dimensional Policy Perspective**  
12:30 PM - 1:30 PM
Room: Room 100, America's Center
Our experience at the MSU CREATE for STEM Institute suggests that successful NGSS implementation requires change from the classroom to the boardroom and beyond.

Speakers:

Christopher Reimann, Director of Policy & Strategic Partnerships, CREATE for STEM Institute, Michigan State University  
Angela Kolonich, Director of Professional Learning, CREATE for STEM Institute, Michigan State University

Session Topic: General Science Education  
Session Type: Presentation

Saturday, April 13

**Free Teacher Resources to Support the Use of Physical and Life Science Online 3-D Assessment Tasks**  
3:30 PM - 4:30 PM
Room: Landmark 2, Marriott St. Louis Grand
We present a variety of free online resources that support teachers in effectively implementing a set of online physical and life science three-dimensional assessment tasks.

Speakers:

Consuelo Morales, Research Associate, CREATE for STEM Institute, Michigan State University  
Phyllis Haugabook Pennock, Research Associate, CREATE for STEM Institute, Michigan State University

Session Topic: Life Science, Physical Science  
Session Type: Presentation