

Displaying 8 results

Thursday, March 31
9:30 AM - 10:30 AM

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Presentation

What Makes Soap Bubbly: An Anchoring Phenomenon That Supports Student Motivation

George R. Brown Convention Center - 342E

Some soaps make more bubbles than others. Let's explore this phenomenon and discover why it is an effective motivating tool for middle school students.

Takeaways: 1. How to use the phenomenon of soap bubble formation to anchor an NGSS-focused chemistry unit to support student motivation; 2. What properties and molecular structures of different soaps contribute to soap bubble formation; and 3. How to utilize motivation design principles in a soap bubble unit to drive student sensemaking.

Speakers

Steven Gaskill (K.O. Knudson Middle School: Las Vegas, NV), David McKinney (University of Nevada, Las Vegas: Las Vegas, NV)

Chemistry

Physical Science

6 - 8

Presentation

Thursday, March 31
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Hands-On Workshop

The Power of Performance Tasks

George R. Brown Convention Center - 322A

In this hands-on workshop, participants learn how a culminating student performance task provided evidence of student learning while having a lasting impact locally.

Takeaways: Attendees will learn: 1. building knowledge across units ensures success on culminating performance tasks; 2. a diversity of assessments allows access to a variety of learners to effectively assess student learning; and 3. building engaging performance tasks provides evidence of student learning while impacting the larger community.

Speakers

Laura Scarselli (Envirolution: Reno, NV), Kristina Hadley (Swope Middle School: Reno, NV), Sylvia Scoggin (Washoe County School District: Reno, NV)

Environmental Science

Physical Science

STEM

3 - 5

6 - 8

9 - 12

Hands-On Workshop

Thursday, March 31
1:00 PM - 2:00 PM

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Presentation

Designing 3-D Transfer Tasks Using Local STEM Professionals and the Phenomena They Explore

George R. Brown Convention Center - 362F

Presents a structure partnering local STEM professionals and teachers in developing 3-D transfer tasks rooted in the phenomena and scenarios the professionals work with daily.

Takeaways: 1. Utilizing local phenomena and scenarios for engagement in assessment tasks; 2. Strategies for developing Three-Dimensional Transfer Tasks; and 3. Engaging local STEM professionals meaningfully in formal education.

Speakers

Catherine Pozarski Connolly (Nevada's Northwest Regional

*Professional Development Program: Reno, NV, Kristine Wilbrecht
(Swope Middle School: Reno, NV)*

General Science

3 - 5

6 - 8

9 - 12

Presentation

Thursday, March 31
1:00 PM - 2:00 PM

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Hands-On Workshop

A STEM Ice Core Investigation That Integrates the Three Dimensions of NGSS

George R. Brown Convention Center - 360 E/F

A multidisciplinary open-ended investigation that incorporates absolute and relative dating, anomalies, historical context, volcanoes, solar proton events, energy cycles, Earth systems, terrestrial events, and supernovas.

Takeaways: 1. Students will have a better understanding of the process of constructing knowledge; 2. Students will have to analyze and defend their results; and 3. Sometimes there is no answer key, only possible solutions from constructing and analyzing data from several sources that cross traditional disciplines.

Speakers

Donna Young (NASA/NSO/UoL Program Manager: Laughlin, NV)

Earth & Space Science

Chemistry

Environmental Science

General Science

Informal Education

Physical Science

Physics

STEM

6 - 8

9 - 12

Postsecondary

Hands-On Workshop

Friday, April 1
2:00 PM - 3:00 PM

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Hands-On Workshop

WIDA-Sponsored Session: Engaging Multilingual Learners (MLs) in Science Sensemaking

George R. Brown Convention Center - 310C

Learn effective strategies for engaging multilingual learners and culturally diverse students in collaborative phenomenon-based sensemaking.

Takeaways: 1. Examine the principles for equitable engagement co-developed by NSTA and WIDA, and discuss how these relate to national reform efforts, but more importantly, how they are applied in science classrooms for multilingual students; 2. Examine suggested classroom norms that support collaboration and equitable engagement among linguistically diverse students and their peers—participants will engage in group discussion about equitable science teaching practices describing the data practices they currently use and which practices they would like to expand upon within their science teaching; 3. Learn new ideas about language and some new approaches to support multilingual students' deep engagement in sensemaking; and 4. Map WIDA's Teacher Discourse Moves and Student Discourse Moves onto the sensemaking process to support the exploration and transformation of science understanding.

Speakers

David Crowther (University of Nevada, Reno: Reno, NV)

General Science

Earth & Space Science

Life Science

Physical Science

STEM

3 - 5

Hands-On Workshop

Using Science Inquiry to Facilitate Learning for Multilingual Learners

Saturday, April 2
8:00 AM - 9:00 AM

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Hands-On Workshop

Using Games as Models of Ecological Interactions

George R. Brown Convention Center - 352D

This session will introduce the gamification of ecological modeling within a biology classroom, through both playing and analyzing student-developed games that demonstrate ecological interactions.

Takeaways: Participants will: 1. develop a greater understanding of modeling as one of the crosscutting concepts of NGSS; 2. learn the DCI related to ecology and SEP of modeling, including developing, using, and evaluating models; and 3. learn the importance of modeling, the revision process when it comes to modeling, and limitations of modeling.

Speakers

Kristine Wilbrecht (Swope Middle School: Reno, NV), Catherine Pozarski Connolly (Nevada's Northwest Regional Professional Development Program: Reno, NV)

Life Science

Biology

Environmental Science

6 - 8

Hands-On Workshop

Saturday, April 2
9:30 AM - 10:30 AM

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Presentation

Language Supports for Productive Classroom Argumentation

George R. Brown Convention Center - 342D

The provided language supports will create a dialogic space for all students, including Emergent Multilingual Learners, to engage in

argument-driven inquiry and scientific sensemaking.

Takeaways: 1. Overall, the presentation will promote equitable participation in classroom argumentation of Emergent Multilingual Learners and other underrepresented students; 2. Attendees will be provided a lesson that sparks collaborative inquiry, argumentation, and sensemaking on a socioscientific issue; and 3. Instructional strategies will also be provided to ensure the lesson is implemented in a discourse-rich environment.

Speakers

Alicia Herrera (John C. Fremont Middle School: Las Vegas, NV), Julie Avila (John C. Fremont Middle School: Las Vegas, NV)

General Science

Preservice Science Education

6 - 8

Presentation

Using Science Inquiry to Facilitate Learning for Multilingual Learners

Saturday, April 2
12:30 PM - 1:30 PM

Add to My Agenda



Presentation

They Gave Me a 3D Printer, Now What Do I Do?

George R. Brown Convention Center - 362D

This session will introduce the general parts and software associated with 3D printers and 3D printing, and lessons to integrate 3D printing into the classroom.

Takeaways: Participants will: 1. gain a basic understanding of the hardware and software involved with 3D printing; 2. develop strategies for integrating 3D printing into their classrooms, through multiple disciplines and be provided example lessons; and 3.

construct a 3D model using TinkerCAD that they can then bring back to their classroom to print.

Speakers

Kristine Wilbrecht (Swope Middle School: Reno, NV)

STEM

Engineering

Physical Science

Technical and Vocational Education

3 - 5

6 - 8

9 - 12

Presentation