

Elementary Science Symposium Breakout Descriptions

NGSS Morning Breakouts

9:20-10:20

Intro to NGSS

Laura Shafer

Sacramento Area Science Project, UC Davis

Learn about the structure of the standards and some of the teaching shifts they require

Intermediate NGSS

Rich Hedman

Sacramento Area Science Project, CSU Sacramento

This workshop is for those who already understand the structure of NGSS and its three dimensions.

Morning Breakouts

10:30-12:00

Grade K-2 Science

- Exploring Forces & Motion with Marble Runs (Kindergarten)

Anna Grace & Paula Baucom

San Juan Unified

Explore the effects of pushes and pulls with a series of small investigations appropriate for kindergarten students.

Grade 3-5 Science (two 45 minute sessions)

- Silent Productive Dialogue about Waves (4th)

Sam Brewer, Chloe Williams, and Bridget Lydon

David Lubin Elementary, SCUSD

Students explore wave patterns using ropes and make sense of the phenomena they observe by using iconic signs that serve as visual models with which they communicate their understanding to each other.

- Can You Drink Acid? (5th)

Janine D'Angelo, Brent Fullmer, Lisa Holland, and Susan Ott

Pershing Elementary, SJUSD

Explore acids in your kitchen and cupboards!

Grade 6 Science

- Human Causes of Climate Change (6th)

Barb Munn

Geology Department, CSU Sacramento

This lesson explores data about climate change to compare potential causes for the warming of Earth.

Engineering - Primary

- Designing technologies for problem solving (K-2)
Jenna Porter and Corinne Lardy
College of Education, CSU Sacramento
Explore just what technology and engineering mean in the primary grades.

Administration Strand

- Site Administrators Panel
Host: Pia Wong, CSUS
This panel of site administrators will share their experiences to date with implementing NGSS at their site and their plans for the future. Bring your questions and ideas to share.

Afternoon Breakouts

1:00-2:30

K-2 Science (two 45 minute sessions)

- Investigating Sound (1st)
Judi Kusnick
Sacramento Area Science Project
Learn how to structure student-driven investigations with limited materials and time.
- Thinking About Changes (2nd)
Heather Fujita, Christine Pearsall, Kim Ricketts
Pershing Elementary
In this lesson, 2nd grade students explore whether changes are reversible or irreversible.

Grades 3-5 Science

- Energy and Speed (4th)
Kathy Gill
Davis Unified, retired
We will use familiar children's toys to explore the relationship of energy and speed.
- Building Windproof Houses (3rd)
Julie Harr, Winston Churchill Middle School, SJUSD
Vikki Muro, Pasadena Ave Elementary, SJUSD
Be blown away by this engaging engineering project that uses everyday office supplies to further students' understanding of weather forces.

Grade 6 Science

- What do the Oceans have to do with Weather? (6th)
Ingrid Salim
Davis Unified
How do the oceans affect temperatures on Earth? How do those differences affect where water travels?

Engineering – Upper Grades

- Designing Windmills (6th)
Aaron Silberman, Marge Clinton, and Claire Hoffman
Orangevale Open K-8 School, SJUSD
How can we harness the power of the wind? This workshop connects science with engineering.

Administrative Strand:

- District and County Administrators Panel
Host: Aaron Pecho, SCUSD
This panel of district and county office administrators will share their experiences to date with implementing NGSS at their site and their plans for the future. Bring your questions and ideas to share.

NGSS Afternoon Breakouts

2:40-3:40

- **Getting Students Ready for NGSS**
Peggy Harte, Dixon Unified
Kathy Gill, retired, Davis Unified
Learn techniques to help elementary students gain foundational skills in questioning, science discourse and sense making.
- **What Do the Practices Look Like in Elementary School?**
Kelli Quan-Martin
EGUSD
A critical aspect of NGSS is that students engage in the practices of science and engineering. This workshop gives you a flavor for what the practices look like in action
- **Intermediate NGSS (repeat of AM session)**
Rich Hedman
Sacramento Area Science Project, CSU Sacramento
This workshop is for those who already understand the structure of NGSS and its three dimensions.

- **Integrating Engineering & Science**

Ben Fell

Civil Engineering, CSU Sacramento

The best engineering lessons should grow naturally out of the science concepts that students are learning. Find out more about the engineering design process.

- **Common Core & Science**

Judi Kusnick

Sacramento Area Science Project

Reading, writing and dialogue are all ways for students to make sense of their science experiences. Learn how to integrate dialogue and literacy strategies into science instruction.