

# 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*

### **NGSS: Beyond the Basics**

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? (5<sup>th</sup>)

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 (6<sup>th</sup>)

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 (1<sup>st</sup>)  
Judi Kusnick  
Sacramento Area Science Project  
*Learn how to structure student-driven investigations with limited materials and time.*
- Thinking About Changes (2<sup>nd</sup>)  
Christine Pearsall  
Pershing Elementary  
*In this lesson, 2<sup>nd</sup> 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 (3<sup>rd</sup>)  
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? (6<sup>th</sup>)  
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 (6<sup>th</sup>)  
Aaron Silberman, Marge Clinton, and Heidi Witter  
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*
- **NGSS: Beyond the Basics** (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.*