

SIRC has always been designed to deepen teachers' ***understanding of science*** and to provide ***innovative ideas, lessons, and classroom strategies***.

This year, more than ever, we want to re-dedicate ourselves to those principles.

Each night, choose from 5+ different 90-minute workshops.

Topics include science, pedagogy, social-emotional learning, and distance learning.

SIRC registration is sponsored by a grant from the California Science Project.

"Taught by teachers, for teachers. Makes everything practical and realistic."

"I would recommend SIRC because it is refreshing to collaborate with teachers in the region. The content is engaging, helpful, and relevant for my classroom."

FAQs

- **How is SIRC different this year?**
We'll interact with each other on Zoom, and workshops are now 90 minutes. There's no guest speaker, but we're including networking time to connect with each other.
- **Is SIRC really free this year?**
Yes - A big thank you to the California Science Project for sponsoring!

✓ Register online at our website:
www.sasp-science.org

🕒 4:00p - 4:30p Networking
4:30p - 6:00p Workshops

📅 February 23, 2021
March 23, 2021
April 20, 2021

➤ 0.6 Continuing Education Units are available for purchase.

Teacher Connections

From 4:00-4:30 every SIRC night will be devoted to connecting and networking with fellow teachers.

Workshops for February 23

CULTURALLY RESPONSIVE SCIENCE TEACHING USING AFRICAN CENTERED PEDAGOGY

Malika Hollinside, Jenna Porter and Corinne Lardy, Sacramento State

This workshop will explore two elementary science activities (pollinators & engineering rockets) and how we used African Centered Pedagogy to adapt them for culturally responsive science teaching. Participants will have an opportunity to examine their own lessons and integrate principles of African Centered Pedagogy.

Technology Used: Google Suite
Designed for Grades: K-5

ENVIRONMENTAL PROJECT PHENOMENA FOR MIDDLE & HIGH SCHOOL INSTRUCTORS

Lisa Hegdahl & DeAnna Mino, McCaffrey Middle School

Project Phenomena brought middle and high school teachers together with local scientists with the goal of building understanding of environmentally-focused phenomena and their role in NGSS aligned science instruction. Experience this NEW NGSS Phenomena resource which includes suggested student activities emphasizing the SEPs, provides grade-level appropriate student explanations that incorporate DCIs and CCCs, and makes explicit connections to the EP&Cs.

Technology Used: Google Suite
Designed for Grades: 6-12

DECODING THE STARS

Melissa Marcucci, Ceres High School

In this Physics of the Universe lesson, participants will use Google Drawings and Google Slides to determine which elements make up a star as well as design their own star to be decoded by their peers. Strategies to embed SEL into the lesson will be highlighted as well.

Technology Used: Google Suite
Designed for Grades: 9-12

CULTIVATING RELATIONSHIPS WITH STUDENTS AND FAMILIES

Kelli Quan-Martin, Science Program Specialist, EGUSD & Vicki Trimmingham, Family & Community Engagement Resource Teacher, EGUSD

What is REAL family engagement? Join us as we examine the characteristics of meaningful and high-quality family engagement. We'll share tools and strategies to develop and strengthen your rapport with your students and their families, including an introduction to the Parent Teacher Home Visit model and how it might look in an online setting. Additionally, we'll share ideas to connect students and families to science and sensemaking outside the classroom walls or Zoom classes. Come prepared to learn, share, and collaborate on new ways to cultivate relationships in-person and over a distance.

Designed for Grades: K-12

STUDENT ASSESSMENT IN A REMOTE LEARNING ENVIRONMENT

Arlene Laurison, Sheldon High School

Learn how to administer formative and summative assessments effectively in a distance learning environment. Students may as well be a world away; how do I know if they are getting it? We will discuss how to increase student engagement with formative assessments that also inform your instruction and enable you to meet student learning needs. How do I prevent students from sharing answers on a test? We will consider this real problem surrounding summative assessments and discuss various ways to combat it. Participants also will spend time constructing and practicing the administration of a formative assessment in break-out groups using whiteboard.fi, Peardeck, or Classkick.

Technology Used: Google Suite
Designed for Grades: 6-12

Workshops for March 23

SPRING IN THE GARDEN: EXPLORING SEASONS, DISSECTING FLOWERS, AND COUNTING POLLINATORS

Lorie Hammond, Director, Peregrine School

Overcoming the limitations of on-line learning: how to create outdoor experiences through workshops which children can do in their yards or at the park and bring back into the online classroom. We will make a seasonal calendar, dissect a flower, and set up a pollinator count. We will interact between virtual discussions and experiences and real phenomena. Participants should bring paper, a ruler, tape, colored pencils and pencils, and 3 flowers. More instructions about pre-activities outside will be shared in advance.

Technology Used: Google Suite
Designed for Grades: 6-12

INCORPORATING STUDENT CHOICE INTO YOUR CLASSROOM

Corinne Rushing, West Campus High School and Nick Bua Monterey Trail High School

Learn how to create a student-centered classroom by incorporating choice into your curriculum and why it improves student engagement. By allowing students to have choice in the modality of their assignments, students are more accountable for taking the lead in their learning. Students can choose to engage with material that is most interesting to them or in a way that they know they learn best. Examples shown will display how we use student choice in our High School Chemistry in the Earth System classes, but all grade levels and courses are welcome. We will also discuss our vision for bringing choice back into the physical classroom. This is a repeat workshop of the the SIRC Fall 2020 workshop of the same name.

Technology Used: Google Suite
Designed for Grades: K-12

PRESERVING THE AHA! AT A DISTANCE OR IN THE CLASSROOM

Megan White & Sarah Caves, Washington Unified
Student discovery, sense-making, and collaboration are cornerstones of NGSS. We will engage in each through a grade level mini lesson, demonstrating both strategies you can apply and a lesson you can take.

Technology Used: Google Suite
Designed for Grades: 6-8

MAXIMIZE YOUR INSTRUCTIONAL MINUTES BY MEETING THE SOCIAL-EMOTIONAL NEEDS OF YOUR STUDENTS

Heather Parker, Sutter County Superintendent of Schools

Now, more than ever, our students have social-emotional needs that must be met. Without addressing these needs, we will struggle to reach the reasoning part of the brain which allows learning to occur. By intentionally embedding social-emotional strategies into lessons, our students will be more prepared to learn and thus allow us to maximize our instructional minutes. We will discuss the importance of meeting students' social-emotional needs and explore strategies to embed them into daily lessons to address these needs in the classroom, virtually or hybrid. You will leave the webinar with resources of easy to implement strategies that can be used to maximize your instructional minutes.

Technology Used: Google Suite
Designed for Grades: K-12

USING DATABASES TO DO SCIENCE AT A DISTANCE OR IN THE CLASSROOM

Steven Ramsay, Elk Grove Unified

The workshop will cover different databases that can be used in biology and physics to supplement lab skills. We will explore how to use databases and how to allow students to choose their own topics. Students can learn data analysis, experimental design and critical thinking skills through the use of databases.

Technology Used: Google Suite
Designed for Grades: 7-12

SCIENCE LEARNING SEQUENCES (IN PERSON OR DISTANCE) FOR GRADES 4-6

Lisa Hegdahl & DeAnna Mino, McCaffrey Middle

In the Spring of 2020, I developed several brief elementary NGSS 5E Learning Sequences to encourage our K-6 teachers to continue teaching science while distance learning. The Sequences are based on phenomena and include an Engage, Explore, and Explain from the 5E structure. Join us to see how, with a little imagination, you can keep science in the elementary school whether teaching online or in person.

Technology Used: Google Docs/Slides
Designed for Grades: 4-6

Workshops for April 20

GET BACK TIME BY FOREFRONTING SCIENCE

Peggy Harte Education Program Manager, UC Davis Center for Community and Citizen Science

This workshop will highlight ways in which elementary teachers can plan for science even with limited time for student contact by forefronting science within integrated lessons. We will explore the Environmental Principles and Concepts (EP&Cs) and look at ways the EP&Cs have been integrated into other content area frameworks. Participants will leave with a co-designed grade level resource to allow for integrated unit planning that places science at the core.

Technology Used: Google Suite
Designed for Grades: K-5

ENGINEERING IN THE DISTANCE LEARNING OR HYBRID ENVIRONMENT

Amy Burke, Laguna Creek High School

How can you increase the likelihood a structure will withstand the dangers of a hurricane? Each student will have an opportunity to use supplies around the house to build a structure to withstand the winds and flood water associated with hurricanes. Engage students in the engineering process as they identify problems, plan solutions, create a product, and evaluate and improve their designs.

Designed for Grades: 4-12

USING DIGITAL NOTEBOOKS TO TRACK STUDENT THINKING

Hannah Perkins, Da Vinci Jr. High

This workshop will cover how to create digital notebooks using Google Slides (with integrated Slip N Slide add-on) in order to engage students, track thinking, and develop models. We will also cover how to plan lesson sequences for digital notebooks and what a week as a student in my class looks and feels like. Digital notebooks can be used in distance, hybrid, and in-person learning settings.

Technology Used: Google Suite
Designed for Grades: 7-12

SCAFFOLDING INQUIRY LESSONS BY ASKING QUESTIONS

Ingrid Salim, Davis Joint Union

In this workshop we will look at the process for helping students develop and use models by scaffolding their thinking with questions and scenarios. Using specific grade-level examples, participants will consider some specific strategies for developing scaffolding and practice creating some on their own. All materials will be shared.

Technology Used: Google Slides and Docs
Designed for Grades: 4-12

STARTING YOUR ANTI-RACIST TEACHING JOURNEY IN THE SCIENCE CLASSROOM AND WHY IT CAN'T WAIT

Susan Rubert, Hiram Johnson High School

NGSS Appendix D "All Standards, All Students" lays out a call to action in reference to serving ALL students in their access of ALL Standards as well as a process and strategies for doing this in research-supported ways. This can lead to uncomfortable and previously unexplored conversations between science teachers and students in the classroom. I will share my journey grappling with this at a very diverse Title 1 school in Sacramento and why this uncomfortable process is so important to start if you haven't already.

Technology Used: Google Suite
Designed for Grades: 9-12

ENGAGING LABS THAT INCREASE STUDENT PARTICIPATION, INQUIRY, AND RETENTION

Jay Brennan, Sheldon High School

Are you running out of ways to engage your students? This workshop will provide you with the guidelines, instructions, and techniques to help make class more interesting. Want to have your students run gel electrophoresis labs at home, air-layer plants, make pH indicators and pH paper, make density columns, do easy and interesting seedling experiments? Students learn best by doing, engineering, and sharing their experiences.

Technology Used: Google Suite