SEASON’S GREETINGS

We hope you were able to find much deserved rest and opportunities to recharge over Thanksgiving Break! As we enter the last month of 2021, December brings time to reflect on the past year and an opportunity to envision and set our intentions for 2022.

Looking ahead to next year, the SCCOE Science team is working on some new and exciting professional learning experiences that will launch in 2022. We will be offering two different Science series that feature best practices in NGSS pedagogy to support equitable outcomes for ALL students. Creating Powerful Learning Experiences in Science professional learning series is already open for registration! See the flyer in the next section for more information. We are also in the planning stages of an Environmental Literacy Summit and a Community of Practices to support School Garden Initiatives. Stay tuned for more information!

It’s also time to support many Districts with their science curriculum adoption utilizing the Toolkit for Instructional Materials Evaluation (TIME) and we have been reaching out to those who have expressed interest in this. If you need support with your science curriculum adoptions or are needing to start this process, please let us know.

WHAT DOES THE SCCOE SCIENCE TEAM DO?

We are here to support teachers and administrators in their implementation of NGSS through coaching, professional learning, and strategic planning.
We also support environmental literacy, sustainability and school garden initiatives.

HOW CAN THE SCCOE SCIENCE TEAM HELP OUR DISTRICT/SCHOOL?

Feel free to reach out to our team via email or phone.
Jennifer Mutch at Jmutch@sccoe.org
Tara Sikorski at Tsikorski@sccoe.org

We are here to support your high quality science and environmental literacy instruction.
Upcoming Events
Creating Powerful Learning Experiences in Science

Professional Learning Series in Winter/Spring 2022

Santa Clara County Office of Education invites all TK-12 Educators and Administrators to the Creating Powerful Learning Experiences in Science Professional Learning Series in Winter/Spring 2022.

Participation in the workshop series includes:
- 8 virtual sessions
- 4 optional sessions for Coaching and Support
- A copy of Ambitious Science Teaching
- Materials

Optional Sessions for Coaching & Support Dates:
- Thursday, February 17, 2022
- Tuesday, March 15, 2022
- Wednesday, April 20, 2022
- Tuesday, May 10, 2022

**All support sessions will be virtual from 3:30-5pm**

Dates:
- Wednesday, January 19, 2022
- Wednesday, February 2, 2022
- Tuesday, March 1, 2022
- Tuesday, April 5, 2022
- Tuesday, May 3, 2022
- Tuesday, May 24, 2022

Time: 4 to 5:30 p.m.
Location: Virtual
Audience: TK-12 Educators and Administrators
Grade Level(s): TK – 12
Cost: $250

Teams of three, get their Administrator in for FREE

Registration:
https://na.eventscloud.com/650526

For more information, please contact:
Jennifer Mutch + Science Coordinator • jmutch@sccoe.org
Tara Sikorski + Science Coordinator • tsikorski@sccoe.org

REGISTER HERE: CREATING POWERFUL LEARNING EXPERIENCES
Learning and Leading for Equity
A Collaborative Convening
Saturday, January 22, 2022
9:00 a.m. - 12:30 p.m.
A FREE Virtual Event
Sponsor Giveaways for Attendees
Register at http://sccoe.to/learningforequity

For Educators & Administrators

Through the lens of equity, this collaborative convening will address:

Inclusion & Belonging
Supporting educators, students, and families in creating a sense of inclusion and belonging so students feel safe, cared for, and heard as they learn and thrive.

Personalized Learning
Empowering students, parents, and teachers to advocate for spaces that support student-centered and personalized learning thathumancenst students.

Family-Centered Practice
Partnering with families and cocreating ways to empower them and advocate for student success.

Keynote Speaker
Andrestesha Fitzgerald
Anti-racism & UDL Author

Featured Speakers
Dr. Julia Aguirre
Culturally Responsive Mathematics Teaching

Dr. Stepan Mekhitarian
Personalized Learning Data Analysis

Including Presentations by
common sense
Project Cornerstone
exploratorium

And Educational Leaders from the Santa Clara County Office of Education

For more information contact Paula Leggett at plegett@sccoe.org

Register Here: Learning and Leading for Equity

Valley Water & SCCOE
Environmental Literacy Educator Cohort
WE STILL HAVE SPACES AVAILABLE!!

We can catch you up with the first session (it was recorded). Our next session is on January 19, 2022. Contact Jenn Mutch if you are interested. jmutch@sccoe.org

This grant-funded project will establish a cohort of Teachers, TOSAs, and Instructional Coaches eager to learn about infusing water education, environmental literacy, and NGSS-based lessons and projects into your teaching. A stipend and classroom materials will be offered at the completion of the program.

If you are interested, please see the following requirements:
1. Attendance at all workshops and RAFT in-person seminar.
2. Development and implementation of 1 or more lessons or units that are water education, environmental literacy, and NGSS focused. More details will be provided throughout the cohort.
3. Partnering with Valley Water’s Outreach Team to co-present lessons to classrooms throughout the 2021-2022 school year.
4. Present an overview of the lesson(s) and/or unit that was developed over the school year with a final reflection and student feedback. This presentation will be done at one of the dates in May.
The Environmental Literacy Leadership Network is a collaborative that will explore ways to infuse environmental literacy into classrooms and schools. We will develop a vision for environmental literacy and sustainability, build partnerships, and connect formal and informal educators in Santa Clara County.

**Dates:**
- Thursday, September 23, 2021
- Thursday, October 21, 2021
- Thursday, November 18, 2021
- Thursday, January 20, 2022
- Thursday, February 24, 2022
- Thursday, March 24, 2022
- Thursday, April 21, 2022
- Thursday, May 19, 2022

**Time:** 3 to 5 p.m.
**Location:**
Virtual via Zoom
**Audience:**
TK-12th Grade Teachers, History/Social Science Teachers, Health Teachers, Science Teachers, TOSA’s, Instructional Coaches, Informal Environmental Educators, and Community Based Partners
**Grade Level(s):** TK – 12
**Registration:**
https://na.eventscloud.com/615910

For more information, please contact:
Jennifer Mutch • Science Coordinator • (408) 453-6691 • jmutch@sccoe.org
The next meeting is January 20, 2022

2021-2022 TOSA AND INSTRUCTIONAL COACHES NETWORK MEETING

Santa Clara County Office of Education invites all Coaches, Mentors and TOSAs (Teachers on Special Assignment) to the 2021-2022 TOSA & Instructional Coaches Network Meetings

- Develop your leadership skills as you learn more about supporting teachers with content, pedagogy, and technology.
- Network with other instructional leaders across Santa Clara County.
- Explore how to support teachers with Project Based Learning (PBL), Universal Design for Learning (UDL), integration of content areas, equity, and inclusion.

Dates:
- September 21, 2021
- October 19, 2021
- November 16, 2021
- January 18, 2022
- February 22, 2022
- March 22, 2022
- April 19, 2022
- May 17, 2022

Time: Noon to 2 p.m.
Location: Virtual via Zoom
Audience: TOSA's, Mentors, Coaches
Grade Level(s): TK – 12
Registration: https://na.eventscloud.com/618909

For more information, please contact:
Jennifer Mutch • Science Coordinator • (408) 453-6692 • jmutch@sccoe.org
MY NAME, MY IDENTITY STUDENT DESIGN CHALLENGE

The My Name, My Identity Initiative Project Team at the Santa Clara County Office of Education (SCCOE) invites educators to submit student work from the Student Design Challenge. For directions of the Student Design Challenge, visit https://bit.ly/studentDchallenge.

With an intent to create a platform to honor student voices, selected student work will be posted on the My Name, My Identity webpage. In addition, teams of students will be invited to share their ideas at the Santa Clara County Bilingual/Multilingual Learner Educators Showcase scheduled for April 28, 2022.

Submission is available between September 1 to December 10, 2021. An SCCOE Media Release Form* will need to be completed for each participating student. For any questions or if other arrangements are needed, please contact Keysha Doutherd at KDoutherd@sccoe.org.
Student Design Challenge Submission Form

My Name, My Identity: Creating an Inclusive and Respectful Community Toolkit

Directions

Theme
- Students in PreK – Grade 2: Kindness
- Students in Grades 3-12: Helping others feel safe and welcome in your classroom, at school or in your community

Prompt
What can you do to help others feel safe and welcome in your classroom, at school, or your community?

Tools
- Student Design Dash Template
- Design Dash Facilitators Guide

Eligibility
PreK – 12th grade educators are encouraged to submit student work in a digital representation including artwork and writing. If the student work is a video, please limit the length of the video to not to exceed two minutes.

Submission Requirements
- Preschool to 12th grade student work will be submitted to SCCDE via an online submission form. Only one (1) student work submission per student or group accepted. Educators can submit the work of the entire class as one entry. View the rules.
- Submissions will be made through the My Name, My Identity Student Design Challenge Submission Form posted at https://www.sccoe.org/sclis/mmri/Pages/default.aspx and will be available September 1 to December 10, 2021.
- For any questions or if other arrangements are needed, please contact Keysha Douthard at KDouthard@sccoe.org.

Partner Workshops & Events

California Association of Science Educators (CASE)
IN PERSON EVENT FOR NORTHERN CALIFORNIA- JANUARY 22, 2022.

Better Together: Northern California CASE Regional Gathering
Date: Saturday, January 22, 2022 | Time: 8:45 am - 4:00 pm
Location: San Joaquin COE - FabLab
2707 Transworld Drive, Stockton, CA
Fee: $65 Members | $85 nonmembers

CASE CONFERENCE 2022 - SAVE THE DATE!!!
Save the date for the 2022 California Science Education Conference! We’ll be FACE-TO-FACE in sunny Palm Springs from October 14-15. More details coming soon!

CA NGSS STATEWIDE IMPLEMENTATION

CA NGSS Statewide Implementation
Online Professional Learning
Building Student Sensemaking Through Disciplinary Literacy

REGISTER AT CANGSS.ORG

REGISTER HERE: CA NGSS STATEWIDE IMPLEMENTATION
Online Professional Learning-Building Student Sensemaking Through Disciplinary Literacy
**LET'S GO OUTSIDE! (GRADES PREK-3+)**

Are you wondering how to help young children to become active and engaged explorers? This workshop is for you!

We will model strategies that support young children exploring their school yard, around their home, or another outdoor setting. We will demonstrate ways to lead this learning equitably, both remotely and in-person. You will have the opportunity to talk with fellow educators and apply strategies to your own unique teaching context.
This workshop is designed for Preschool - 3rd grade teachers, but teachers of older students may also find it valuable. All educators are welcome.

Saturday, January 22, 2022
9:00 am to noon (Pacific time)
Cost: $35
Registration will close on or before Friday, January 21

REGISTER HERE: LET'S GO OUTSIDE WORKSHOP

DIGGING INTO DATA
(GRADES 6-12)

Support students in using data to draw conclusions and tell stories about the world. Prepare them to think critically about claims made based on data and correlations. This three-hour online learning experience will be highly interactive and will engage you in small-group discussions and individual exploration. You will try out activities as a learner, as well as reflect with your peers on how to apply these ideas in your own teaching.

This workshop is designed for teachers of grades 6 - 12. All educators are welcome.

Saturday, February 5, 2022
9:00 am to noon (Pacific time)
Cost: $35
Registration will close on or before Friday, February 4.

REGISTER HERE: DIGGING INTO DATA WORKSHOP

THRIVING CALIFORNIA
(GRADES 4-8)
By exploring the world around us, we can find clues that will tell us about California’s past and present. What we learn can help us to shape solutions that will ensure a thriving California for the future.

Ecology and ecosystems are big concepts. In this workshop you will engage with some strategies that make them both accessible and relatable. These strategies will involve direct interactions with both the natural and the built environment around us. You will be supported to figure out how the strategies we practice in this workshop might be translated for successful implementation in your unique teaching & learning context.

This workshop is designed for people who work with grades 4-8, but is not limited to that range and all educators are welcome.

Saturday, March 12, 2022
9:00am - 12:00pm (Pacific Time)
Cost: $35
Registration will close on or before Friday, March 11.

REGISTER HERE: THRIVING CALIFORNIA WORKSHOP

EXPLORING YOUR ENVIRONMENT WITH MATH AND SCIENCE (GRADES 3-5)

What do scientists and mathematicians have in common, and how do they work together? Experience model activities that bring together math practices and science practices and support students to succeed at both. These activities will also get students outside and exploring their local environment. Workshop participants will reflect on the experience and discuss ways to apply these pedagogical strategies in your own context. This three-hour online learning experience will be highly interactive and will engage you in small-group discussions and individual exploration.

This workshop is designed for teachers of grades 3 - 5. All educators are welcome.

Saturday, March 19, 2022
9:00am - 12:00pm (Pacific Time)
Cost: $35
Registration will close on or before Friday, March 18.
Buses and Biofuels: Sustainable Transportation

Grade level: 6-10
Length: 4 minutes
NGSS Disciplinary Core Ideas: MS-ESS3.A, MS-ESS3.C, MS-ESS3.D, MS-ETS1.1

For Video Discussion Questions and Accompanying Activity, please visit https://www.calacademy.org/educators/buses-and-biofuels-sustainable-transportation?utm_campaign=educator_enews_20211129&utm_medium=email&utm_source=Mailjet
Exploring Carbon Footprints with K-2 Students Workshop
December 9th @ 4:30pm PT
VISIT BIT.LY/32KTR3F TO REGISTER!

Presented By green guardians
GREEN GUARDIANS PRESENTS

EXPLORING CARBON FOOTPRINTS WITH K-2 STUDENTS

This virtual professional learning workshop and the corresponding pilots are designed to provide teachers with the confidence and instructional materials to advance environmental literacy in their classrooms.

Each teacher will be provided with a $50 gift card for piloting the materials and completing the survey. There will be up to $500 in prizes and giveaways awarded for participation and a class engagement challenge!

Through readings, activities and discussions, students follow the story of a wildfire that has caused Aunt Kitty to evacuate her home. This extreme weather event frames the inquiry into carbon footprints.

Presenter:
Yvonne Qiu, Senior Instructional Designer
Green Guardians

REGISTER BY DEC. 8TH
Space is limited to 50 teachers
Who can sign up?
Kindergarten or 2nd-grade teachers in California who want to integrate environmental education into their instruction.

REGISTER NOW

IMPORTANT DATES:
• December 9th: Workshop 4:30-6:30PM Pacific Time
• December 9th-February 28th: Pilots, surveys, and challenge submissions
• March 1st: Challenge winners announced

Register here: bit.ly/32Ktr3f
The Tech Challenge 2022: Kinetic Commotion

Partner Resources

EXPLORATORIUM-LEARNING TOOLBOX
Towards Equity: Exploring Language Development through Science Practices

Overview
We are recruiting twelve elementary teachers in grades 3-5 from across California to participate in a one-year, online professional learning community (PLC) focused on supporting students who are labelled as English language learners ("ELLS") in science. In this PLC, you will be provided with opportunities to design and test strategies to promote the participation of ELLs in scientific sensemaking through engagement in science practices in your own classroom. We will engage in cycles of inquiry in which we identify challenges in our own teaching contexts, develop and implement practices and tools to overcome these challenges, and collaboratively reflect on evidence of their effectiveness. Teachers will be offered a honorarium of $1,200 for their participation in the project.

What will I learn?
- Strategies for supporting all students, especially “ELLS” in engaging in science practices;
- Interrelationships between language, culture, race, power and participation in science learning.

How will I learn?
- Through monthly online synchronous meetings (via Zoom), one Saturday a month from 9am - 11am PST (1/15, 2/5, 3/5, 4/9, 5/7, 6/4);
- Through optional opportunities for consultations with facilitators;
- Through readings, engaging in collegial discussions, brainstorming new ideas for classroom practice, and reflecting on your own instruction and that of other educators.

Who is eligible to participate?
We are looking for teachers who...
- Teach science consistently in Grades 3-5 in California public schools using CA NGSS-aligned materials that engage students in science and engineering practices;
- Teach students who are classified as ELLs and have an interest in supporting their participation in science discourse and discussion;
- Have an interest in engaging with educational theories about science learning, language, and equity;
- Have an interest in engaging in inquiry cycles using classroom video to develop classroom practices/tools.

Collaborators
Emily Miller  
University of Wisconsin
Emily Reigh  
Stanford University
Maria Chiara Simani  
University of California

This project is funded by the California Science Project through the 2020 Elementary and Secondary Schools Emergency Relief (ESSER) funds.

Application: https://biturl.com/TowardsEquityInScience  
Contact: eleigh@stanford.edu
Rosanna Ayers from the Biomimicry Institute and Jill Grace from the K-12 Alliance are recruiting K-5 teachers for a cadre focused on biomimicry. Help Rosanna and Jill with recruitment by writing to Rosanna with recommendations at rosanna.ayers@biomimicry.org.
NEW JOURNAL ON CLIMATE CHANGE FROM CASE

NAVIGATING THE POLITICAL DIMENSIONS OF CLIMATE CHANGE TEACHING AND LEARNING

STEAM TEACHING TOOLS CLICK HERE TO READ

CLICK HERE TO VIEW - STEM TEACHING TOOLS - Navigating the Political Dimensions of Climate Change Teaching and Learning

SCIENCE CURRICULA NEW RESOURCE

Critical Features of Instructional Materials Design for Today's Science Standards: A Resource for Science Curriculum Developers and the Education Field

Today's science standards have initiated a significant shift in all parts of the science education system. As a result, science instructional materials are also changing. Educators, school and
district administrators, and developers of instructional materials need to be able to develop a common vision of high-quality curricula that will prepare students for success in school and beyond.

This resource is jointly authored by EdReports and NextGenScience to illustrate critical design features of science instructional materials and provide common language for describing high-quality materials.
This report sets a bold vision for the future of high quality science education looking across all of grades K-16 and puts equity and opportunity at the center. It also explores role of science education for participation in democracy and daily life.

SCIENCE AND ENGINEERING EDUCATION NEEDS TO BE PRIORITIZED THROUGH FIFTH GRADE, SAYS NEW REPORT

Starting in early childhood, children are capable of learning sophisticated science and engineering concepts and engage in disciplinary practices. They are deeply curious about the world around them and eager to investigate the many questions they have about their environment. Educators can develop learning environments that support the development and demonstration of proficiencies in science and engineering, including making connections across the contexts of learning, which can help children see their ideas, interests, and
practices as meaningful not just for school, but also in their lives. Unfortunately, in many preschool and elementary schools science gets relatively little attention compared to English language arts and mathematics. In addition, many early childhood and elementary teachers do not have extensive grounding in science and engineering content.
More Environmental Literacy Resources and Partners Featured on the SCCOE and SMCOE Environmental Literacy websites above.
The mission of the Science Department is to provide service and support for all educational stakeholders. We offer workshops, conferences, and student events that promote the Next Generation Science Standards (NGSS). Science explores and explains phenomena around us. It is a way of gaining, organizing, applying, and conveying knowledge of that phenomena. Having science as one of the core contents in K-12 education is vital as it influences our culture and has allowed society to flourish.

For even more resources, workshops and upcoming conferences, please visit our webpage. We are updating this weekly. Please also let us know if you have any events or workshops that you would like to share.