Sacramento Area Science Project
An Education Partnership • UC Davis and CSU Sacramento

NGSS Science Leader Pathway

Ready to take your work with NGSS to the next level?
The NGSS Science Leader Pathway will provide professional development, support, and a learning community around best practice and the implementation of the NGSS.

The goal of the NGSS Science Leader Pathway is to support a cadre of science education leaders across California who can support other teachers in understanding the shifts in the NGSS by facilitating a study group in their own district or county using the Next Generation Science Exemplar System for professional learning (NGSX).

Program Features:
- Two Part Program:
  - Part 1: Leadership Participant Training
  - Part 2: Study Group Implementation back at home site.
- Registration/logistics support when leading study group.
- Access to ongoing facilitation support

Audience: Science teachers and leaders, science coordinators, and higher education faculty (teams of 2 preferred).
Dates: Summer Institute: June 27-30 and July 19-21. Plus 3 follow up dates TBD.
Location: University of California, Davis.
Cost: $1900/participant for 10 days of leadership training.
Application Deadline: June 3

This goal will be accomplished in 2 parts:

Part I: Leadership Participant Training

Participants will be part of a leader training that includes engaging in all 7 of the NGSX unit modules *as well as a* facilitator training. This facilitator training will not only prepare participants to lead an NGSX study group, but will also provide quality professional learning for the leaders themselves around model-based inquiry, evidence-based reasoning and talk, and adapting curriculum to align with the NGSS.

> After graduate school, I have only been to a handful of professional development courses that really changed my teaching. NGSX was one.
> - *HS Teacher and NGSX facilitator*

Part 2: Study Group Implementation back at the home site

Equipped with the training and the NGSX program, the leaders will be authorized to facilitate an NGSX study group of (12-20) teachers back in their home school or district as an expected outcome of participation in the program. This on-site study group will engage in the 7 NGSX units for a 45-hour PD experience. The Sacramento Area Science Project will provide support in the form of logistics help and consultation for implementation of the NGSX pathway, coordinate user fees and access to the NGSX system, use/purchase of the materials needed for the science investigations and additional leader support. As a trained NGSX facilitator you will coordinate with your school/district/county office on the recruitment of study group participants as well as set up the logistics of the study group (e.g. location, time, stipends, etc.).

> The NGSX Web based program prepared me to lead my own study group in our district. The NGSX site is well organized and the resources were easy to follow. This program helped me grow as a teacher leader in my district as well as becoming very familiar and confident in using the practices in my teaching. This program and the support… help make this PD very successful with positive reviews from all the teachers in our group.
> - *Elementary teacher, and NGSX Facilitator*

For further information and to apply, please go to SASP website: http://education.ucdavis.edu/sacramento-area-science-project or contact Cynthia Passmore at cpassmore@ucdavis.edu

Sacramento Area Science Project
An Education Partnership • UC Davis and CSU Sacramento

What is the NGSX Professional Development System (NGSX)?

The NGSX is a new kind of learning environment. It is a web-based system designed to help teams of K-12 science educators apply the pedagogical shifts (moving from "learning about" to "figuring out") described in the Framework for K-12 Science Education and the Next Generation Science Standards to their own teaching. NGSX brings the expertise of NRC Framework developers, experts in teacher learning, and expert professional development facilitators to science educators.

> The teachers in our study group report that NGSX is extremely valuable. They have gone back to their schools and bragged about it so that there is high demand for more study groups among teachers in our schools, now. The best part is, as a science coach, watching good science planning and instruction unfold in the classroom. It makes a difference to students! I see it first hand.
> *- MS teacher and NGSX Facilitator*

NGSX is organized into learning pathways structured to immerse participants – as learners and as teachers -- in the 3 dimensions of learning; core ideas of science, scientific and engineering practices and crosscutting concepts called for in the framework. Using a web-based system of tasks, tools and resources in a face-to-face study group format, the NGSX experience combines first-hand science investigations, videotaped expert commentary and classroom case studies along with facilitated individual, small group and whole group discussions. Because these tools, tasks, and resources are located on a web-platform they are available to participants at any time outside of scheduled study group meetings.

> I hope all educators with our district have the opportunity to participate in this. It will forever impact their teaching across all content areas and the culture of their classrooms to best meet the needs of students.
> - NGSX Study Group Participant

In a collegial, seminar-like environment, NGSX participants will engage in modeling and constructing explanations of complex phenomena, hallmarks of Next Generation Science. They will also learn to use questioning strategies, or "talk moves", to create a classroom culture in which students explain their thinking, listen to and build on the ideas of others and function as a community of critical thinkers. For more information and to watch a short video please go to NGSX.org.

> This best thing about this program is being able to work with other educators, build on each other's strengths within the K-12 science teacher continuum. I would absolutely recommend this experience to all teachers, new and experienced, because it demonstrates the practices of NGSS to teachers in the true pedagogy of constructivism having teachers learn as students. After taking this I was prepared to teach my new science units with the NGSS practices because of all of the resources shared with us.
> *- NGSX facilitators*

NEXT GENERATION SCIENCE STANDARDS For States, By States

NeXtGen Science Exemplar System

For further information and to apply, please go to SASP website: http://education.ucdavis.edu/sacramento-area-science-project or contact Cynthia Passmore at cpassmore@ucdavis.edu