

Delaware science teachers facilitate national training



How to Become a NextGen Science Teacher (BNGST) is a virtual professional learning pathway designed and developed by the Next Generation Science Exemplar (NGSX) project. Facilitated by Delaware educators alongside a team from Rhode Island, the pathway helps science teachers from 19 different states learn more about engaging in discourse with students, modeling, working with phenomenon, doing gallery walks, and collaborating as learners. This year's training marks the first time NGSX has provided the BNGST pathway in an entirely virtual platform.

“Having a group of dedicated facilitators and supporters is vital to the success of doing this training justice and allows new teachers to have science learning redefined for them,” said facilitator Carrie Evick from **Cape Henlopen School District**. “I honestly have benefited from being able to continue facilitating in the virtual model – all the tech skills, practice with Zoom, use of platforms like Jamboard and GoogleDraw. All of this will be so impactful to take back to my classroom, just like when I participated in the BNGST face-to-face pathway last summer.”

NGSX is designed as a professional learning system with the vision and capacity to support the multiple roles involved in changing science-education teachers as well as principals, curriculum supervisors, instructional coaches and English learner (EL) specialists who support science learning. NGSX is also geared to pre-service faculty and state science supervisors. Each role is critical to supporting teachers and students to make the shifts in teaching and learning advanced in [Next General Science Standards \(NGSS\)](#) and the Framework for K-12 Science Education.

“NGSX does not just ask you to think about learning as if you were a student – it literally puts you in their shoes,” said **Woodbridge School District's** Falon Licinski, who also facilitated the BNGST pathway. “I love seeing participants work together to explain the

phenomena. Virtual facilitation brought with it many challenges: random internet outages (tornadoes!) and of course occasional tech glitches, but the participants were devoted and eager to push through. By the end, one teacher told me that NGSX was a 'game changer' for her- and that was all I needed to hear."

The BNGST virtual pathway contains a sequence of six, four-hour modules. Each module is based on a set of learning goals. Together, these modules supported understanding of three-dimensional learning, and in particular, how scientific and engineering practices identified in the National Research Council's Framework and NGSS plays a critical role in helping students build and revise their scientific ideas over time. The context for the participants' work in the science and engineering practices for these modules was in the physical science domain focusing on the structures and properties of matter (investigating how gases behave and the effects of air pressure). Throughout, they learned about and developed models, engaged in evidence-based argumentation and explanation, and explored classroom video cases with other science educators, as they were part of the NGSX learning community.

"Whether as a facilitator or participant, NGSX is most decidedly challenging but so worth the effort," said state facilitator and **Christina School District** Science Specialist Sheryl Murphy. "I think the most important piece to running a successful training is the collaboration not only with your facilitation team, but also the collaboration that results from building that special 'classroom dynamic' with the participants."

The Delaware Department of Education is planning to offer more NGSX trainings over the 2020-21 school year for both teachers and administrators. Registration will begin in late fall and the training is expected to fill quickly.

"As a teacher and instructional specialist, the training brought the NGSS standards to life," said **Smyrna School District's** Deb Morrison. "It allowed the participants to have a sneak peek at what a classroom should look like. As a facilitator in both face-to-face and virtual settings, it was amazing to be engaged with teachers in such a meaningful way. Of course, the struggles of the logistics of a remote classroom don't disappear, but guiding teachers and administrators in their understanding of 3D learning is worth the struggles. NGSX provides real applications teachers can use in all content areas."