

NGSS NOW

8 things to know about quality K-12 science education in August 2022



1

New High School Quality Unit Posted



A New Visions for Public Schools high school unit was recently identified as quality by NextGenScience's expert reviewers. The unit supports students to explore the possible “mismatch” between human bodies and modern environments by investigating phenomena at the protein level. Students then redesign their school environment to ameliorate mismatches between our bodies and the environment so that all students have a healthy and safe school building.

See the unit and the corresponding EQulP Rubric for Science evaluation report [here](#).

2

Attending to Race and Identity in Science Instruction

This newly published STEM Teaching Tool provides recommended approaches for science educators to critically reflect on how race and identity affect their practices and relationships with their students. The tool can help educators leverage their students' identities, particularly students from Black, Brown, and Indigenous communities, and provide the space in their classroom to discuss racial and cultural backgrounds.

See Practice Brief 89 [here](#).



3

Public Event: Report on Science and Engineering in Preschool Through Elementary Grades: The Brilliance of Children and the Strengths of Educators



The Board on Science Education is hosting an event focused on the National Academies report, [*Science and Engineering in Preschool Through Elementary Grades: The Brilliance of Children and the Strengths of Educators*](#). Panelists will discuss recommendations from the report about ensuring access to quality science and engineering education in elementary grades.

Learn more and register for the hybrid September 15 event [here](#).

4

Three Things The Science Lady Wants Every Administrator to Know

In this Teaching Channel Talks podcast episode, Kathy Renfrew, award winning science educator and Education Specialist for the Wade Institute for Science Education, shares what she would like every school and district administrator to know about how today's science standards can create supportive contexts for science teachers and students. She describes the importance of increasing access to quality science education for all students, connecting science learning to local contexts and other disciplines, and priorities for science assessment design and preparation.

Listen to the Teaching Channel podcast episode [here](#).

5

Seeing Facets, not Misconceptions: How to Build on the Range of Student Thinking in Instruction

This professional learning module can support educators in developing effective approaches to engage with the diversity of student thinking and provide opportunities for students to refine their thinking and understanding as they engage in science. The module includes a facilitator's guide, slides, and resources to facilitate a full-day session.

See the [Advancing Coherent and Equitable Systems of Science Education \(ACESSE\)](#) resource [here](#).



6

Case Study: Administrators' Perceptions of Evaluating Science Teaching

This research article from Southern Connecticut State University shares findings from a study focused on school principals' evaluations of science classrooms. The study found a disconnect between current evaluation tools and best practices for science instruction. The article highlights the importance of administrator professional learning focused on research-based best practices for science education and aligned classroom evaluation tools.

See the article [here](#).

7

Webinar Today: Key Factors for Implementing High-Quality Materials With Integrity

In this EdReports webinar, educators will discuss features of successful materials implementation, including the presence of supportive leadership, ongoing coaching, and professional development. It is part of a larger webinar series about the state of the instructional materials market and the needs of both teachers and students.

Register for this afternoon's EdReports webinar [here](#). The recording will be shared following the webinar [here](#).

8

Webinars: Introduction to Phenomena Found in Agriculture



In a series of livestream events provided by the American Farm Bureau Foundation, educators will explore how agriculture can be connected to science learning. The webinars will focus on agricultural phenomena from all three grade bands that can be used to drive student learning in the science classroom and the relevance of agriculture to student lives.

Register for the On The Farm STEM webinars (August 11 and September 15) [here](#).



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