

NGSS NOW

7 things to know in March 2023



1 Three New Quality High School Units Posted

In the OpenSciEd *P.1: Energy Flow from Earth's Systems* high school unit, students make sense of the February 2021 Texas power crisis by figuring out how energy transfers between systems and what makes energy sources reliable. Students then design a reliable energy solution that meets their communities' needs based on interviews with friends and family members. The unit was awarded the [NGSS Design Badge](#) by NextGenScience's cadre of expert reviewers.



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



In the OpenSciEd B.1: Ecosystems: Interactions, Energy, Dynamics high school unit, students use the Serengeti National Park as a case study to figure out ecosystem and conservation principles and apply that understanding to conservation dilemmas in the US. By engaging with real-world conservation dilemmas and exploring various interest-holder perspectives, students identify the trade-offs humans make as they manage natural resources to support human society as well as the natural systems we live in. The unit was awarded the [NGSS Design Badge](#) by NextGenScience's cadre of expert reviewers.

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

In the OpenSciEd C.1: *Thermodynamics in Earth's Systems* high school unit, students figure out how rising sea levels cause some communities of people to have to move. Through investigations, simulations, and system models, students figure out how decreasing carbon dioxide emissions and two geoengineering solutions could help slow polar ice melt, protecting coastal communities. The unit earned a rating of *High Quality NGSS Design if Improved* by NextGenScience's cadre of expert reviewers.



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

2

Using Nature Journaling to Identify Meaningful Local Phenomena



This new STEM Teaching Tool provides guidance for educators to use Nature Journaling, a strategy where students record their experiences and observations with natural environments through various modalities. The tool provides suggestions for finding phenomena and problems that would be relevant and authentic to students and for supporting relationship building between communities and students.

See STEM Teaching Tool 92 [here](#).

3

Webinar Recording: Integrating Authentic Data and Ambitious Science Teaching Practices to Help Students Make Sense of Phenomena

This webinar introduces participants to Ambitious Science Teaching practices and authentic climate datasets to support teachers to incorporate meaningful data into their instruction. Participants engage with and learn how to use "Data Puzzles" — a free resource created by climate scientists and instructional specialists from the University of Colorado Boulder to help engage students in data analysis in the context of real-world scientific research.



See the NAGT webinar [here](#).

4

Infusing Mainstream STEM Education with Indigenous Culture, Language and Values

Historically, the STEM education field has excluded perspectives from minoritized student groups, especially those from indigenous communities. This article highlights the work of WestEd's Dr. Sharon Nelson-Barber in incorporating indigenous and other non-dominant cultural perspectives, values, and languages in STEM teaching and assessments.

Read the Scientia article [here](#).

5

Opportunity: Provide Feedback on the Next Science NAEP Framework

The National Assessment Governing Board (NAEP) is currently in the process of reviewing and updating the NAEP Science Assessment Framework, which was last updated in 2005. As part of the process, a working draft of the recommended updates is made available for public review and feedback prior to review, revision, and final approval from the Governing Board. Public feedback is an essential part of the process to update NAEP assessment frameworks. The public comment period is from March 13 to April 17.

Read the draft and provide feedback [here](#).

6

ICYMI: Insights about Equity and Inclusion in Science Education



This virtual workshop hosted by the Board on Science Education brought together researchers and practitioners to discuss insights gained over the past decade of science standards development, adoption, and implementation. This event explored how approaches to advancing equity and inclusion have evolved and the implications for science education.

Watch the webcast and read the meeting transcript [here](#).



Opportunity: Help Identify High-Quality Instructional Materials with EdReports

EdReports is a non-profit organization with a mission to empower educators with independent, credible, evidence-rich information about instructional materials to ensure students have what they need to be college and career-ready. They are accepting applications for reviewers for K-12 science instructional materials starting in April 2023. Apply now to engage in deep professional learning on the Next Generation Science Standards with a national network of skilled educators.

Learn more about EdReports [here](#) and apply to become a reviewer [here](#).

