

NGSS NOW

8 things to know in March 2024



1 Two New High-Quality Units Posted

In the MySci *Saving the Sand Dunes* unit, students investigate the changing Sleeping Bear Sand Dunes. They examine why these sand dunes are important, how wind and water change the dunes, and why this is a problem. Students then design and test solutions that can protect the dunes. The Grade 2 unit was awarded the [NGSS Design Badge](#) by NextGenScience's cadre of expert reviewers.

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



The OpenSciEd *C.3 Molecular Processes in Earth Systems* unit focuses on what substances we would need to find, make, and recycle in order to successfully live and work beyond Earth, or in space. The high school unit was awarded the [NGSS Design Badge](#) by NextGenScience's Peer Review Panel.

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



2

Blog Post: Missed an Episode? No Problem!

In today's science classrooms, tracking students' progress helps them understand what they've learned and what's next. A new [On the Same Wavelength](#) blog explores how instructional recap strategies, like driving question boards and class model trackers, can help students make explicit connections between lessons and set the context for the day's learning while making sense of phenomena or problems.

Read the NextGenScience March 2024 blog post [here](#).



3

Journal Article: Three Transformative Leadership Practices



This article examines three leadership practices underway in a Title I school district in Central Phoenix, including the role of these practices in shifting the district culture from little-to-no science instruction for elementary students towards support for phenomena-based science teaching and learning. It describes how a focus on science instructional time, high-quality literacy-rich science instructional materials, and coordinated opportunities for teacher professional growth worked together as crucial elements to enact change throughout the school system.

Read the Science & Children article [here](#).

4

Vision Setting: A Can't-Miss Step for Curriculum Implementation

“We found that successful teams articulated a vision of how they wanted to transform teaching and learning and then chose a curriculum to support and advance that vision. In other words, they saw high-quality curriculum as a tool to improve teaching and enhance student learning rather than as the end goal in and of itself. Though that may seem like a minor distinction, it can fundamentally change the way schools approach implementation.”

See the Instruction Partners blog post [here](#).



5

The NAEP Science Exam Is Getting a Major Update. Here's What to Expect

The National Assessment Governing Board recently approved a new framework for assessing students' understanding of science, aiming to better reflect real-life applications of science and engineering. The shift towards interactive tasks and alignment with *A Framework for K–12 Science Education* seeks to address concerns over declining scientific literacy among students and ensure inclusivity for emerging multilingual learners.

See the EducationWeek article [here](#).

6

Educator Resources from the Global Vegetation Project



The University of Wyoming's Biodiversity Institute launched the [Global Vegetation Project](#), an interactive database of vegetation photographs with filters for temperature, precipitation, or biomes. This resource can help science curriculum developers connect real-world data and phenomena to the classroom.

See the database [here](#).

7

Research Article: Parent Involvement and Student Academic Motivation Towards Science

“Parents’ beliefs and behavior act as both explicit and implicit ways of communicating the value of science and their confidence that their child can be successful in science-related classes. ... In particular, parent education and parent involvement have positive and significant effects on students’ science identity and science self-efficacy. These findings suggest that students may have a stronger academic motivation in science with parents who have higher levels of education, more confidence in their ability to help their child in science, and who engage in more science activities with their child.”

See the Humanities and Social Sciences Communications article [here](#).

8

CADRE Learning Series on Rural Partnerships

Recognizing the unique assets and needs of rural education, DRK-12 researchers are working in partnerships with rural communities across the U.S. to support STEM education. In the first part of the two-part series hosted by the Community for Advancing Discovery Research in Education (CADRE), researchers shared their approaches to working in rural settings and creating mutually beneficial partnerships. They highlighted both benefits and challenges to working with rural schools and offered strategies to keep in mind when building a research plan and budget.

Find more information about the Learning Series [here](#) and see the recording of Part 1 [here](#).

