

NGSS NOW

7 things to know about quality K-12 science education in **November 2020**



1 New High-Quality Middle School Unit Posted

In this interdisciplinary OpenSciEd unit, students consider situations where two objects (such as a cell phone and the ground) collide, sometimes causing damage and sometimes not. Attempting to identify the factors that contribute to damage and explaining what happens in some collisions and not others sparks a series of questions and ideas for investigations.



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

2 Passing the Sniff Test Webinar: What Matters Most When Looking at Earth and Space Science Instructional Materials

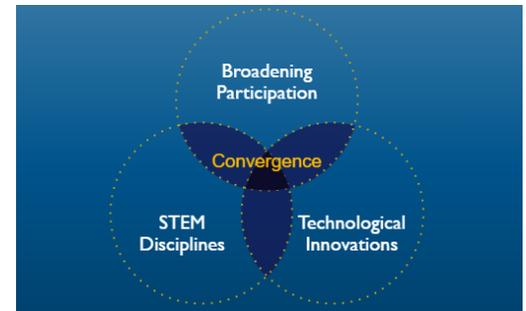


Should you trust Earth and Space Science materials that claim to be "100% aligned to the NGSS"? In this webinar featuring WestEd's K-12 Alliance and NextGenScience, participants will consider what really matters when developing, selecting, or modifying instructional materials and learn about the evidence collection and analysis process to determine the quality of materials for themselves. The webinar is sponsored by the NGSS-ESS Working Group, a collaboration between American Geosciences Institute, National Association of Geoscience Teachers, and National Earth Science Teachers Association.

Register for the November 12 webinar [here](#).

3 Integrating STEM and Language with All Students, Including English Learners

This presentation by Dr. Okhee Lee, professor of childhood education at New York University, focuses on the value of NGSS instructional shifts and how students' experiences in making sense of phenomena and problems is a powerful lever to both use and develop language. Additionally, Dr. Lee's recent blog post discusses how enacting the NGSS vision of "all standards, all students" can address systemic racism exacerbated by COVID-19.



See the CASE Conference presentation [here](#) and blog post [here](#).

4 Making the Grade? How State Public School Science Standards Address Climate Change



"Despite the overwhelming scientific evidence, political debate over the reality of climate change and human responsibility for it rages on. This debate is shaping public policies, good and bad, that determine our society's response to the emergency scientists warn about. But to what extent are public schools helping students understand what is happening and preparing them to responsibly engage in civic deliberation on the problem and possible solutions? To help answer this question,

the National Center for Science Education (NCSE) and the Texas Freedom Network Education Fund (TFNEF) engaged in a comparative study of how each state's science standards for public schools address climate change."

See the report from the National Center for Science Education and the Texas Freedom Network Education Fund [here](#).

5 Two Resources About Anti-Racism in Science Education

Building an Anti-Racist Science Classroom: This month's NSTA NextGen Navigator explores how systemic social injustice contributes to inequities in the science classroom. Three featured blog posts highlight the importance of creating anti-racist K-12 science classrooms, amplifying Black voices in the science education community, and positioning white educators as effective allies in social justice.

See the issue from NSTA [here](#).

Want To Dismantle Racism in Science? Start in the Classroom In this Short Wave podcast episode, science educators confront issues of representation and racism in science education and share a vision for more inclusive science education. Educators share strategies they've used to deepen their own racial understanding and approaches to embed social justice in their science classrooms.

Listen to the 13-minute podcast from NPR [here](#).

6

NGSS in the Classroom: Findings from the K-8 Early Implementers Initiative



In their most recent report, evaluators of the K-8 Early Implementers Initiative highlight teachers' experiences with instructional practices that promote equitable science instruction. Featured vignettes illustrate how educators: (1) integrated the three dimensions of the NGSS, (2) used real-world scientific phenomena and/or engineering problems to launch and drive instructional lessons and units, and (3) had students do

investigations in ways that gave them the responsibility and opportunity for learning. The report also features resources to help administrators implement and support NGSS teaching and learning in their schools.

Read the WestEd report [here](#).

7

Panel Discussion: Examining Science and Engineering in Preschools

The National Academies Board on Science Education hosted a series of conversations to examine science and engineering in preschool. Topics included integration, pre-service and in-service teacher education, early science and engineering in local community contexts, promoting science in early childhood classrooms, and STEM curriculum in preschool settings.



See the panel discussion video recordings [here](#).



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