7 things to know about quality K–12 science education in November 2021

1 High Quality Unit Posted

In the OpenSciEd Unit 6.4, students are introduced to the phenomenon of a 2015 Himalayan earthquake that shifted Mt. Everest in a different direction. Students then wonder what could cause an entire mountain to move and work to develop an explanatory model. The unit was awarded the NGSS Design Badge by the NextGenScience Peer Review Panel.

See the unit and the corresponding EQuIP Rubric for Science evaluation report here.

2 Blog Post: CCCs as Power Tools

Are we equitably equipping students to use CCCs? The newest post from NextGenScience’s On The Same Wavelength blog explores the question of how explicit CCCs should be in student learning experiences.

See the post and follow the blog here.

3 New STEM Teaching Tool 79: How can we confront and dismantle systemic racism through science learning?

STEM Teaching Tool #79 provides context and suggestions for dismantling institutional and system racism. “Science teaching and learning often leaves untouched a status quo that threatens the physical, emotional, psychological, and intellectual well-being of historically minoritized learners, especially students from Black, Indigenous, and People of Color (BIPOC) communities. Science educators must consider questions of racial injustice and anti-Blackness in the history of science, dominant assumptions about what counts as science, representations of who engages in scientific practices, and how we teach these topics.”
Call to Action for Science Education: How Teacher Leaders Can Help

On October 28, the STEM Teacher Leadership Network hosted a webinar about the new *The Call to Action for Science Education* report. "In this webinar, members of the committee that developed the report will share their vision of a better, more equitable K–16 science education and describe the critical role that science teachers can have in this extraordinary community effort to transform science education. The session will combine presentation of the key messages in the report with opportunities for discussion and interaction."

See the webinar from Science Teacher Leadership Network [here](#).

Pedagogical Commitments for Climate Justice Education

Learning about impacts of and solutions to climate change is meaningful to students when it is connected to local phenomena and problems in students’ lives. In this brief, Fikile Nxumalo and Pablo Montes discuss three guiding principles for educators and share examples of how they can be used to address justice-oriented challenges in students’ own communities.

See the NSTA brief [here](#).

California Journal of Science Education: Special Edition on Climate Change

The California Association of Science Educators collaborated with the Scripps Institution of Oceanography to publish a special journal on climate change. The journal is intended to support classroom teachers and other science educators so they can better meet the needs of pedagogical shifts and climate-related standards called for by the NGSS.

See the journal [here](#).

ICYMI: Taking Stock of Science Standards Implementation Summit

Last month, the Board of Science Education of the National Academies of Sciences, Engineering, and Medicine hosted days one and two of a public summit focused on implementation of state science standards to identify successes, challenges, and areas where additional support is needed. A third day of the meeting will take place on December 8, and a follow up in-person session is planned for spring 2022.

See the meeting recording and materials [here](#), and sign up for day three [here](#).
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