

NGSS NOW

8 things to know about quality K-12 science education in July 2020



1 New High-Quality Middle School Unit Posted

In this Mi-STAR unit, students explore how a case can protect a cell phone from the forces when it is dropped or crushed under something, and use engineering practices, forces and motion ideas, and systems modeling to design a cell phone case to meet specific criteria and constraints.



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

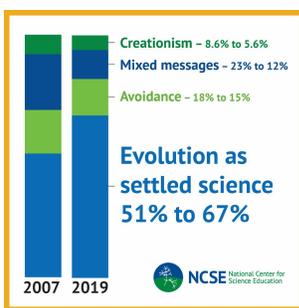
2 WestEd K-8 Science Education COVID Survey Webinar Recording



In this webinar, researchers from WestEd's STEM program shared preliminary findings from their survey examining the effects of sudden school closures caused by the COVID-19 pandemic on K-8 science instruction, as well as some initial comparisons between grade 6-8 teachers' NGSS instruction through distance learning after school closures compared to prior school years. NextGenScience facilitated a discussion around supporting K-8 science educators to improve student learning and experiences during the 2020-2021 school year.

See the [recording](#), [slide deck](#), and [summary of the chat conversation](#) to learn more.

3 Good news: U.S. classrooms are warming to evolution, thanks in part to scientist outreach



A new study shows significant improvement in evolution education over the past dozen years, according to this commentary by [NCSE](#) Executive Director Ann Reid. " Much credit is due to the Next Generation Science Standards. ... The 44 U.S. states that have adopted these, or standards based on the same framework, have seen the greatest improvements."

Learn more from Nature [here](#).

4 Webinar: Addressing Environmental Literacy in the Age of NGSS

In this webinar recording, WestEd Research Associates Burr Tyler and Dr. Katy Nilsen discuss the synergies between environmental literacy and NGSS teaching. After reinforcing the importance of environmental literacy, the hosts dive into the opportunities and challenges a group of districts in California faced while promoting environmental literacy instruction. The webinar concludes with resources to support integration of environmental literacy into science instruction.



View the webinar recording and slide deck [here](#).

5 Toward More Equitable Learning in Science: Expanding Relationships Among Students, Teachers, and Science Practices

"Inside the science classroom, teachers can play a uniquely powerful role in addressing issues of equity, in particular, by valuing the insights, perspectives, and experiences of students from historically underserved communities as they make sense of scientific phenomena and making the intellectual value of these contributions visible to the students and the class as a whole."

Read the full chapter by Megan Bang, Bryan Brown, Angela Calabrese Barton, Ann Rosebery, and Beth Warren from the NSTA book, *Helping Students Make Sense of the World Using Science and Engineering Practices*, [here](#).

6 In planning for reopening schools, importance of teaching science must not be lost



"California's 6 million K-12 students have been making hard-earned gains in learning science in recent years, but engaging children in meaningful investigations to understand the world they live in are now in danger of being lost in the COVID-19 scramble."

Read the commentary from CalMatters [here](#).

7

Why combining diversity with STEM is a good thing for kids

"I worked with a program in New York City taking Black and brown kids out into nature. And it wasn't about, 'We're going to make you love the outdoors.' It was about empowering them to make decisions based on experience. They might go hiking and decide the outdoors is not for them. But that's part of equality. It's about giving kids the opportunity to make a choice from a place of equal opportunity."

Read more from National Geographic [here](#).

8

Seven strategies for supporting student learning in a remote environment



"While it might be more expedient to present online lessons, electronic worksheets, and resource packets, we propose that the learn-at-home circumstance offers an opportunity to present students with more engaging and meaningful learning experiences. More specifically, we recommend providing students with assignments and tasks that challenge them to find information from various sources, critically appraise what they find, and use what they learn to address interesting issues and genuine problems."

Read more from ACSD [here](#).



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