NGSS NOW

7 things to know about quality K-12 science education in June 2021



Two New Community-Centered STEM Teaching Tools



Connecting Science Instruction to Neighborhood Life Through Collaborative Design with Community

STEM Teaching Tool #73 provides research, guidance, and resources on supporting students' science learning at home and in their local communities. When connections are made between school and community, students gain a better understanding of the variety of ways science relates to their lives and communities.

See the resource here.



Designing and Participating in Community and Citizen Science Efforts to Support Equity and Justice

STEM Teaching Tool #74 can support science educators and leaders to design science experiences that center the interests of the communities they serve. This inclusive approach can engage diverse members of the public in science and challenge traditional assumptions about who is considered a scientist.

See the resource here.



Two Resources on Equitable Assessments



OpenSciEd Webinar Recording: An Equitable, 3-D, Learning-Focused Approach to Classroom

This webinar explores the features of a science unit assessment system and effective assessments through the lens of an example OpenSciEd unit assessment. Several OpenSciEd units have been identified as high-quality by the NextGenScience Peer Review Panel here.

See the webinar here.



Advancing Racial Equity in Educational Assessment

"This report provides an introduction to the history and legacy of racism in educational assessment and offers five areas of opportunity for advancing practice: classroom assessment, large-scale test design, psychometrics, reporting, and test use. Each opportunity explores a number of strategies for interrupting patterns that perpetuate inequities."

See the report from Cognia Assessments here.



NAEP Science Scores Down for Fourth-Graders, Flat for Older Students; Are Reading Challenges to Blame?

The newly released science scores from the National Assessment Educational Progress (NAEP) show that middle and high school student scores were similar to those in 2015, but elementary student scores saw a three point drop. This article provides insight on what may have led to these scores, and recommendations on how science teaching and learning can be improved to address the results from the report.

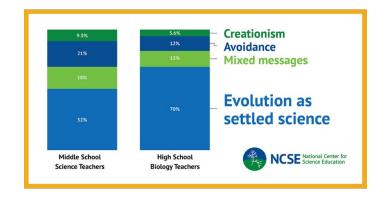
See the article from The 74 here.



Teaching Evolution in U.S. Public Middle Schools: Results of the First National Survey

"This study reinforces the importance of state science standards in ensuring the integrity of science education. Adopting a good set of standards — and ensuring that teachers are equipped to meet their demands — increasingly appears to be the best avenue to providing students with the science education they need and deserve."

See a summary of results here and the research article here.





Amid a Pandemic, Educators Reimagine the Future of K–12 Schools



"The COVID-19 pandemic has blurred the line between home and school in unprecedented ways: Parents have navigated helping their kids learn online, while teachers have gotten a closer look than ever before, sometimes literally, into the home lives of their students... Furtak, at least, is in no hurry to reinstate those lines when kids begin the next school year in September. Science education, she said, works best when students have the chance to ask and answer their own questions about the natural world, rather than just memorizing facts in textbooks."

Read the CU Boulder Today article here.



Weaving Anti-Bias and Equity Into Curricula Begins with Self-Reflection

"Anti-bias and equity can be woven throughout curriculum, from literature to science lessons... Science classes can also be woven into social justice lessons. For example, students might investigate the chemistry of taste while looking at food deserts, where access to affordable and healthy food may be limited."

See the K-12 Dive article here.





Elementary Science Summer Learning Conversations

The Michigan Mathematics and Science Leadership Network and The Charles A. Dana Center at UT-Austin are hosting several informal virtual conversations around different features of science and engineering education in elementary school.

See the dates and link for the conversations here.





