

NGSS NOW

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



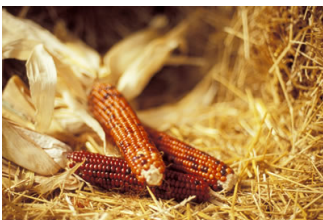
1 New STEM Teaching Tool: Focusing Science and Engineering on Justice Centered Phenomena Across PK-12

"Justice-centered investigations can open up important opportunities for students to engage in projects that support equity for communities and to see how the application of science and engineering are fundamentally entwined with political and ethical questions, dimensions, and decisions."

Read the new STEM Teaching Tool [here](#) and the accompanying NSTA Next Gen Navigator edition [here](#).



2 New High-Quality Life Science Units Posted



Why is our Corn Changing? In this revised second-grade unit by NextGenStorylines, students explore why their harvest corn begins to sprout what appears to be leaves and roots. Disagreements about how the corn is growing sparks a series of questions and ideas for investigations related to what is causing this growth.

See the unit and its EQulP review [here](#).

Where Does Tree Mass Come From? In this middle school unit by the K-12 Alliance, students deepen their understanding of how energy flows and matter cycles through living systems through figuring out an anchor phenomenon of a time-lapse video of a seedling growing into a tree. This phenomenon leads students to ask, "Where does it come from?" and work to develop and revise a model to explain how matter is transformed from the surrounding environment to create a large oak tree.



3 How to Promote Authentic STEM Learning for Families



"In normal times, parents sometimes participate physically as volunteers or aides in schools and classrooms - this can't happen now given COVID-19 school closures. Parent-teacher communication has also been interrupted. Because students are no longer bringing physical artifacts home to show their parents, and school work now tends to live online, schools need to incorporate new ways to loop families in to student learning."

Read more from Digital Promise [here](#).

4 Elementary Science: Equipping Students Through Inquiry and Integration

"Waiting until the middle grades to give science an equal place among the academic subjects not only handicaps students' performance in reading - background knowledge is necessary for comprehension - it means they have less time to develop important thinking skills that will benefit them in all subjects."



Read the SREB Policy Brief [here](#) and register for the June 18 webinar on improving elementary science [here](#).

5 'Challenges, Curiosity, Creativity, & Community' in the Online Science Classroom

"We all know about the 5E's of instruction. For our pandemic science classes, may I focus instead on the 5C's. Confronting challenges with curiosity, creativity, and community. The challenge of teaching is minor compared to the struggles many students face learning from home. Now more than ever, our students need to feel safe. While we can't control all elements by focusing on Science and Engineering Practices (SEP) and human impacts, we CAN create an environment for success."

Read more at EdWeek [here](#).

6 The Return: How Should Education Leaders Prepare for Reentry and Beyond?



"Curriculum matters. The research record on the difference that a knowledge-rich curriculum can make for student learning is extensive and growing... As leaders prepare their school communities for the challenge of restarting face-to-face as well as hybrid models, a coherent pathway for learning recovery and acceleration needs to include greater reliance on high-quality materials and instruction, and completing the circle with curriculum-based assessments."

Read more from Chiefs for Change [here](#).

7 ClimeTime Professional Learning Session: How to Support Home-Based Science Learning During School Closures

"With students and educators under shelter-at-home orders, states and districts are faced with difficult decisions about how to support students' science learning while they are home. Home environments support different aspects of student learning than school-based environments. Designing home-based learning experiences to intentionally take advantage of the unique assets of being at home can be supportive of students' social, emotional, and mental health; provide a meaningful and complementary science learning experience; and allow students to explore real-world and personally relevant science in ways that are difficult to accomplish in school. Field-based examples of home and neighborhood investigations of ecological systems will be shared."

See the webinar recording and resources shared at STEM Teaching Tools [here](#).

8 Investigating the Impacts of COVID-19 on K-8 Science Instruction



During school closures resulting from the COVID-19 pandemic, implementing NGSS-aligned science instruction through distance learning poses an exceptional challenge. WestEd researchers are conducting an NSF-funded survey of K-8 educators to understand the impact of school closures on K-8 science teaching.

If you'd like to share your own experiences with science instruction during the pandemic, complete the survey [here](#).



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