NGSS NOW

6 things to know in January 2023

1 Big Goals for Pennsylvania K–12 Science Education in the New Year

Pennsylvania's educational system saw major changes in 2022 with the adoption of the Science, Technology, Engineering, Environment Literacy and Sustainability (STEELS) learning goals. To prepare for this shift, leaders are continuing efforts through the Pennsylvania Science Education Leaders (PennSEL) Network, a group launched and managed by NextGenScience at WestEd. The network engages teams in learning, strategic planning, and project implementation to create science programs that support all students to meet the new STEELS learning goals.

Read the NextGenScience announcement here.

2 A Timely Reminder: There Are No Silver Bullets, Even With Professional Learning

"It's consistent with decades of K–12 research. The hard truth: professional learning in absence of curriculum has a weak track record for changing student outcomes, even with sizable investments. 'Curriculum is not a silver bullet' goes the popular refrain and for good reason. Yet some seem to treat professional learning focused on strategies and disconnected from curricula as a silver bullet, which is just as unrealistic."

Read the Rivet Education post here.

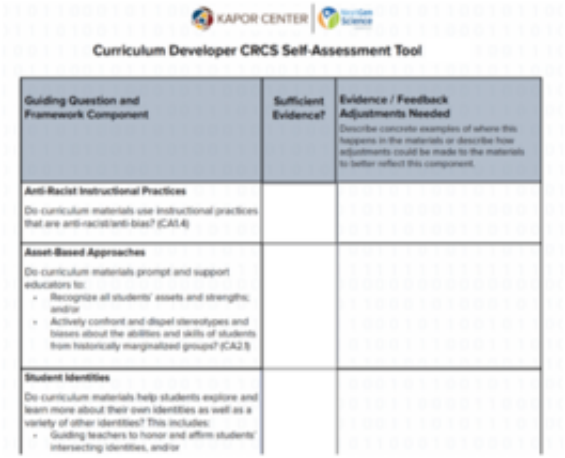
3 How These Teachers Center Student Voice in Science Class

Three award-winning elementary science teachers share strategies they use in their classrooms to connect learning to students' lives and experiences and support young learners to see themselves as scientists. These strategies can inspire elementary teachers to tackle some of the current challenges with elementary science such as finding materials, time, and professional learning.

See the Education Week article here.

4 Curriculum Developer Self-Assessment Tool for Culturally Responsive-Sustaining STEM Education

A new tool developed by the Kapor Center and NextGenScience supports STEM curriculum developers in self-assessing their materials for culturally responsive and sustaining pedagogy. The tool was developed from the *Culturally Responsive-Sustaining Computer Science Education Framework*, which provides a shared definition of culturally responsive-sustaining pedagogy and core components of implementing them.


KAPOR CENTER

Curriculum Developer CRCS Self-Assessment Tool

Guiding Question and Framework Component	Sufficient Evidence?	Evidence / Feedback Adjustments Needed Describe concrete examples of where this happens in the materials or describe how adjustments could be made to the materials to better reflect this component.
Anti-Racist Instructional Practices Do curriculum materials use instructional practices that are anti-racist/anti-bias? (CA1.4)		
Asset-Based Approaches Do curriculum materials prompt and support educators to: - Recognize all students' assets and strengths; and/or - Actively confront and dispel stereotypes and biases about the abilities and skills of students from historically marginalized groups? (CA2.1)		
Student Identities Do curriculum materials help students explore and learn more about their own identities as well as a variety of other identities? This includes: - Guiding teachers to honor and affirm students' intersecting identities, and/or		

See the tool here.

5 Future Approaches in STEM Education

The latest National Science Teaching Association (NSTA) blog post proposes justice-centered STEM education as one example of a future approach that can address pressing societal challenges such as the COVID-19 pandemic and climate change while providing meaningful science education for students.

See the NSTA blog post here.

6 ICYMI: Guidelines for Improving Science and Engineering Materials for Multilingual Learners

These guidelines, released in October 2022, lay out essential characteristics of science and engineering materials designed for multilingual learners. Content developers, professional learning communities, and other education leaders can use the tool to improve curriculum to best support all students socially, emotionally, and academically.

See the English Learners Success Forum tool here.

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