5 things to know about quality K-12 science education in December 2018

1. New Report on Middle and High School Labs

A new National Academies of Science, Engineering and Medicine report, *Science and Engineering for Grades 6-12: Investigation and Design at the Center*, was released this month about middle and high school science labs and how to best engage today’s students in doing science and engineering through an analysis of evidence and examples. Specifically, this report provides guidance for teachers, administrators, creators of instructional resources, and leaders in teacher professional learning on how to support students as they make sense of phenomena, gather and analyze data/information, construct explanations and design solutions, and communicate reasoning to self and others during science investigation and engineering design. It also provides guidance to help educators get started with designing, implementing, and assessing investigation and design.

2. Brief on Considerations for STEM Education from Pre-K through Grade 3

This recently released brief draws on research and development supported by the National Science Foundation to highlight important considerations about STEM educational experiences for young children and professional learning for educators who provide those experiences. It makes the case for early exposure to STEM fields and summarizes research that says it makes a big difference for kids in socio-emotional development, STEM-related habits of mind like critical thinking, and improves performance in other subjects. It also looks through an equity lens: early exposure to STEM benefits students of all backgrounds, especially those traditionally underserved in STEM classrooms.
Rubric Added to Science Professional Learning Standards

The Council of State Science Supervisors' (CSSS) Professional Learning Committee recently completed the work to add a rubric to the Science Professional Learning Standards (SPLS). These standards are designed to support science educators in making informed decisions about the attributes, implementation, and evaluation of professional learning experiences. The SPLS provide clear expectations for both the provider of professional development and the participant in professional learning.

The CSSS Professional Learning Committee will be hosting an upcoming #NGSSChat on Twitter: "Professional Learning Standards: What makes for high quality NGSS professional development?" The chat will be held on December 13, 2018 at 9:00 p.m. ET. Also, The National Science Education and Leadership Association and the CSSS Professional Learning Committee members will lead on a joint webinar January 10, 2019 at 2:00 p.m. ET on the SPLS and rubrics. Click this link to join the webinar on January 10.

It's Not Too Late! Apply to Join the Science Peer Review Panel by December 12

Achieve is seeking educators to join the Science Peer Review Panel ("Science PRP"), an elite group of educators who work to evaluate and share high-quality lesson sequences and units that are designed for the NGSS. Peer Reviewers have an opportunity to connect with a network of educators across the country committed to advancing science education for all students, develop their expertise in the NGSS, and work to make better science instructional materials more widely available to the science education field. This opportunity includes free, valuable professional learning experiences designed to deepen your understanding of the NGSS and the evaluation process for instructional materials. Apply to join the Science PRP by filling out this online survey by December 12, 2018.

Assessment White Paper by the Science Teachers Association of New York State

The Science Teachers Association of New York State released a white paper to help support the design of an assessment system that better serves science teaching and learning in New York. The paper advocates for many of the same ideas in Achieve’s Criteria for Procuring and Evaluating High-Quality and Aligned Summative Science Assessments and a coherent and consistent system of assessments.

Achieve is hiring!

Click the links below to learn more about these open positions and how to apply. If you have any questions, please email hr@achieve.org.
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