12 things to know about quality K-12 science education in October 2017

1. NGSS website redesign makes it easier to search the standards and find resources

The website www.nextgenscience.org has been updated based on multiple rounds of feedback from teachers, administrators, district and state leaders, and other advocates of the NGSS. Key information on some webpages, including the homepage, has been reorganized to provide clear navigation for site users to search the standards and locate available resources. Learn more.

2. NGSS Parent Guides now available in Spanish

Building on the success of the NGSS Parent Guides for Grades K-2, 3-5, 6-8, and 9-12, new versions have been developed for Spanish-speaking parents.

These guides illustrate how the standards are a powerful foundation to help students build a cohesive understanding of science over time. Read more.
3 Earth Science Week is October 8-14

Join millions of educators, students, and science enthusiasts in celebrating Earth Science Week 2017! Educators can search the website for tailor-made activities that match what is being taught in the classroom.

To find the perfect activity for your lesson, search by (1) NGSS Performance Expectation, (2) a topic, and (3) the grade level. Learn more about the NGSS Classroom Activities.

Learn more about #EarthScienceWeek resources, events, and opportunities to engage. Click here.

4 14 Resources to connect STEM to other subjects

All students need STEM literacy to prepare for the world of tomorrow.

Inservice, the official blog of the ASCD, has shared fourteen resources that help students see and better grasp important connections between English and science, math and history, and technology and art. Learn more.

*Image courtesy of Allison Shelley/The Verbatim Agency for American Education: Images of Teachers and Students in Action.

#NGSSslowchat: Science professional learning on Twitter
"Slow chats" on Twitter allow for personalized learning and rich conversations on-demand.

A group of educators known as the NGSS PLN has launched an online book study for the book *Seeing Students Learn Science: Integrating Assessment and Instruction in the Classroom (2017)*. The book was authored by Alexandra Beatty and Heidi Schweingruber.

Using the hashtag #NGSSslowchat to engage educators about this book, organizers will tweet one question each day, Monday thru Thursday over a period of six weeks.

The chat will run from Oct. 2 thru Nov. 10. Learn more.

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**Smithsonian program connects middle schools with real scientists**

One way that schools and districts can help students see how science is used in the real world is with the Smithsonian's Science How program.

The program, designed for middle school students and teachers, offers innovative opportunities that connect real scientists to classrooms using video webcasts and online text chats. Learn more.

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*Image courtesy of Allison Shelley/The Verbatim Agency for American Education: images of Teachers and Students in Action.*

**Upcoming workshop to explore science investigations and engineering design experiences for grades 6-12**

The National Academy of Sciences is undertaking a new study that will provide guidance for designing and implementing science investigations and engineering design for middle and high school students.

A free public workshop will be hosted in Washington, DC (and live streamed online) on
Editorial: Early emphasis on STEM is vital

By The Capital-Journal Editorial Board
Topeka Capital-Journal
September 25, 2017

Between May 2009 and May 2015, employment in STEM fields grew at more than twice the rate of other occupations in the United States.

According to the Bureau of Labor Statistics (BLS), this trend will continue over the next decade and STEM occupations will remain much more lucrative than jobs in other fields.

As our economy demands more workers with STEM training, our education system must adapt.

Read more.

*Image courtesy of Allison Shelley/The Verbatim Agency for American Education: Images of Teachers and Students in Action.

Colleges move to close gender gap in science

By Melissa Korn
The Wall Street Journal
September 25, 2017
An analysis by The Wall Street Journal found that nine of the 10 largest STEM programs have increased their share of women graduates.

"Those gaps aren't going to close themselves without some commitment, some effort and some resources," said Kevin Miller, a senior researcher at the American Association of University Women, which advocates for gender equity in education. Read more.

*Photo Credit: Matthew Healey for the Wall Street Journal

If your teacher looks like you, you may do better in school

By Carl Boisrond
www.npr.org
September 29, 2017

A new study found that when students had teachers of the same ethnicity as them, they reported feeling more cared for, more interested in their schoolwork and more confident in their teachers' abilities to communicate with them.

Students also reported putting forth more effort in school and having higher college aspirations. Read more.

*Photo Credit: Zai Wei Zhang for NPR

Partnership brings NGSS into elementary classrooms

College of Education
University of Washington
October 6, 2017
Changing how science has been taught for decades to students in elementary school is no easy task, especially in a large district like Seattle that has 2,000 elementary teachers.

A new partnership between Seattle Public Schools, University of Washington College of Education researchers and the Teaching Channel is taking on the ambitious task of better preparing the next generation of scientists and scientifically-knowledgeable citizens. Read more.

Superintendent reflects on NGSS implementation and STEM collaboration in district

By Vincent Matthews
San Francisco Examiner
October 9, 2017

For a long time, most subjects in school were taught in separate classes. For instance, math teachers didn't coordinate with engineering teachers on their lesson plans. But that's not how it works in the world, or most projects would fail.

At SFUSD we developed our Vision 2025 plan and our NGSS curriculum with biotech industry leaders, engineering executives and university professors, among others. Read more.

*Image courtesy of Allison Shelley/The Verbatim Agency for American Education: Images of Teachers and Students in Action.