

# NGSS NOW

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Monthly newsletter highlighting quality K-12 science education.

## How Next Generation Science Standards Avoided the Backlash of Common Core

After new standards in reading and math ran into backlash from critics claiming federal overreach, early supporters of the NGSS decided to take a different approach. [Read more.](#)



## Q&A with NSTA: Unpacking 3D Standards

Given ongoing discussions about the need to "unpack" the NGSS, and questions about how to do it, the NSTA shares some ideas about what the term means and, specifically, what it means for schools and districts implementing the new science standards. [Read more.](#)



## Why We Need to Teach Science in Elementary School

Participation in quality science instruction from a young age helps students develop favorable attitudes towards science. Educators can leverage that interest to cultivate a sense of curiosity and

wonderment about how things work as students engage in science investigations. [Read more.](#)



## Colleges and Businesses help Teachers Plant Seeds for Tomorrow's Botanists, Engineers

This past summer, elementary and middle school teachers from Illinois met with STEM industry professionals and college educators to learn how the math and science lessons they teach in their classrooms correlate to jobs today and in the future. [Read more.](#)



## Districts Offer Special Training to Help Teachers Meet Demand for Bilingual Science Instruction

Native Spanish speakers who have been teaching in English-only classrooms are the focus of specialized training in many districts across California. The state seeks to leverage these teachers' knowledge to meet the increased demand for bilingual teachers, especially in science. [Read more.](#)



## A Literacy-Based Strategy to Help Teachers Integrate Science Skills

Novel Engineering, developed by researchers at [Tufts Center for Engineering](#)

Education and Outreach is an innovative approach to integrate engineering and literacy in elementary and middle school. [Read more.](#)



## Branch Alliance for Educator Diversity

The recently-launched, [Branch Alliance for Educator Diversity \(BranchED\)](#) is a new organization focused on closing the educator diversity gap by maximizing the impact and influence of educator preparation programs at minority serving institutions. BranchED provides technical assistance and amplifies the unique contributions of minority serving institutions (MSIs) through collaboration with key partners, including K-12 entities, the business community, nonprofits, and philanthropic organizations. [Read more.](#)



## Featured Standards-of-the-Month

This section features an example of how certain PEs\* could be bundled in order to develop an instructional unit that engages students in science phenomena.

- **MS-PS1-1:** Develop models to describe the atomic composition of simple molecules and extended structures.
- **MS-PS1-2:** Analyze and interpret data on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred.
- **MS-PS2-2:** Plan an investigation to provide evidence that the changes in an object's motion depends on the sum of the forces on the object and the mass of the object.

See where these ideas are introduced in [A Framework for K-12 Science Education](#) (pages 106, 109, and 116). For a more in-depth look at these PEs and to search for other standards, [click here](#).

## *Featured Phenomenon-of-the-Month*

This section offers teachers a potential way to connect the Featured Standards-of-the-Month to a real-world phenomenon for student engagement.



*As Nikki was preparing to leave for school, her stomach started feeling funny. Since Alka Seltzer usually makes her stomach feel better, she dropped two tablets into her plastic water bottle, tightened the lid then hurried to the bus stop. When she sat down on the bus, the water bottle's cap burst open and seltzer water gushed onto Nikki and other students who were sitting nearby.*

Below are some high-level lines of inquiry that could help facilitate students' understanding of disciplinary core ideas (DCIs) related to this phenomenon.

- What changes occurred inside the water bottle as Nikki hurried to the bus stop?
- What changes forced the water bottle's lid to burst open?
- Why do antacid tablets react differently when put into water? What happens to the tablets?