

NGSS NOW

11 things you need to know about the NGSS this month (and a  science fact)

May 2015

1 Framework, NGSS Transforming Science Education in Classrooms Across the Country

While 12 states and the District of Columbia have officially adopted the NGSS at the state level, the standards are having an impact in schools and districts across the country even in non-adopting states. Below is an excerpt from a recent article from Education Week's Liana Heitin that explored how districts and teachers are taking it upon themselves to bring the highest-quality science education to their students.

"But in states such as Florida, Missouri, Nebraska, and Pennsylvania, which have not yet adopted the standards-and may never do so in totality-some districts are moving ahead with the Next Generation Science Standards anyway.

"We recognize that Pennsylvania for a variety of political and financial reasons may not be quick to make the change, but we're committed to the more rigorous and engaging standards the Next Generation will provide," said David Geaneatte, the director of science, technology, engineering, and mathematics for the 8,400-student Neshaminy district in Langhorne, Pa.

"In fact, at NSTA's national conference in Chicago this March, more than 100 teams of

teachers and administrators from individual districts attended a block of sessions that focused on the new science standards. The groups came from 34 states, ... 25 of which had not yet adopted the standards."

[Read more](#) (subscription required)

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2 QUESTION OF THE MONTH

Q: I'm looking for a resource to help me explain how the NGSS differ from previous sets of science standards. Is there anything posted on the website that I can reference?

A: One resource on the website that you might find useful is [Appendix A - Conceptual Shifts in the NGSS](#). It is a five page document that describes seven conceptual shifts that demonstrate what is new and different about the NGSS. Appendix A can be used in a variety of contexts, and the shifts can be a useful entry point for starting discussions and conversations about the NGSS. The other NGSS Appendices provide useful information as well and can be found on the left side of [this webpage](#). You might also take a look at this new [one-page chart](#) from the National Research Council. To do an in-depth comparison between the NGSS and another particular set of state science education standards, this [Standards Comparison Tool](#) might be helpful.

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Highlighted Resources

3 Looking to hear more about lessons learned from working with states on NGSS adoption and implementation? Watch this excerpt from Stephen Pruitt's presentation at NSTA's 2015 National Conference in Chicago: "[The Top 10 Things I Learned in 2014.](#)"

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4 Interested in learning more about professional development that supports the new vision for science education? Check out this new [two-page brief from STEM Teaching Tools](#).



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5 Standard of the Month

[5-PS1-2](#): Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved. For a more in-depth look at this NGSS performance expectation and to search for others read more [here](#). Need more context? See where these ideas are introduced in [A Framework for K-12 Science Education](#) (page 106).

NGSS in the News

6 [Science fair night a community project at Lansdowne Elementary](#)

by Katie V. Jones, *The Baltimore Sun*
April 20, 2015

"An exciting evening of science is planned for April 21 at Lansdowne Elementary School, featuring science exhibits, food, reptiles and more, organizers say. While it is not the first STEM fair night the school has had, according to Principal Stephen Price, in an email, the free community event is the first time that the school is "treating this like a big celebration of all things science."



7 [California Superintendent of Public Instruction Tom Torlakson visits McCaffrey Middle School in Galt](#)

by Jennifer Bonnett, *Lodi News-Sentinel*
April 21, 2015

"What is the relationship between the Sun and the Earth, and how does this relationship impact the temperatures on earth? That was the guiding question scrolled on the white board of science teacher Lisa Hegdahl's classroom at McCaffrey Middle School in Galt."



**SCIENCE
FUN FACT**

April 24th was the 25th anniversary of the launch of the Hubble Space Telescope. See photos taken over the years [here](#).

Opinion

8

[My First NGSS Lab](#)

by Tanya Katovich, Next Generation Chemistry
April 7, 2015

"After it was over I felt utterly exhausted. Developing my first laboratory experience that met the Performance Expectations of NGSS required time and energy. Was it worth it? Absolutely."



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10

[But why? #AprilBlogADay](#)

by Janelle Wilson, Stretching Forward
April 8, 2015

"I normally spend my time with older students since I teach high school, and I used to teach sixth grade. However, sometimes I spend some time with my nephew. He recently turned three. He loves to ask questions. His favorite? "Why?" And he really wants to know because he's trying to figure out the world around him."



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[Perfecting the NGSS Engineering Dance](#)

by Marsha Ratzel, Reflections of a Techie
April 26, 2015

"A virtual colleague made this observation recently on Twitter which got me reflecting on what I found out from my own experimentation with engineering and science practices & learning about Newton's 3rd Law."



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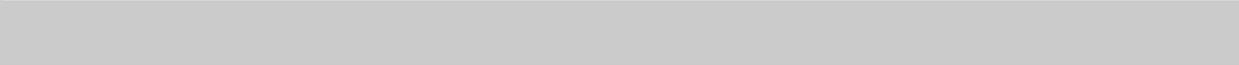
[What Happened to the Scientific Method?](#)

By Hallie Mills, CORElaborate
April 20, 2015

"Like many teachers, I began the fall introducing my students to the scientific method. I even went a step further, trying to align myself with the Next Generation Science Standards (NGSS), and created an Engineering Design Process Chart with my students as well."



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