

NGSS NOW

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



October 2015

1

Webinars: Learn to Use the NGSS Evidence Statements and Classroom Sample Tasks

The NSTA hosted two webinars in August to help educators begin thinking about the use of the NGSS Evidence Statements and the NGSS Classroom Sample Tasks. Links to the NGSS Evidence Statements, the NGSS Classroom Sample Tasks, and other NGSS resources can be found [here](#).

[The NGSS Evidence Statements webinar](#) introduces educators to the evidence statements for K-12, which describe what students need to be able to know and do by the end of instruction to demonstrate proficiency on each performance expectation in the NGSS. The webinar includes practitioner perspective on how the evidence statements can be used to help educators think through instructional planning.

[The NGSS Classroom Sample Task webinar](#) was designed to help educators think about how tasks that blend material from both the NGSS and the Common Core State Standards can be used to integrate instruction, resulting in more coherent experiences for students. The webinar introduces the sample tasks, which were developed collaboratively by math and science teachers, and discusses the benefits and challenges of cross-disciplinary classroom experiences.

2

QUESTION
OF THE
MONTH 

3

Standard of the Month

Q: Why are the NGSS arranged by individual grade levels in elementary grades, but by grade bands in middle school and high school?

A: The courses offered and required in middle school and high school vary from state to state. As such, the NGSS writing team and the 26 lead states decided to present the standards in grade bands to ensure that individual states, districts, and schools could make their own decisions about which standards to use in middle school and high school courses. However, the NGSS writers gave some examples (which can be found in [Appendix K](#)) to show different ways to arrange standards within these grade levels.

[5-ESS1-2](#): Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky. 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 175).



**SCIENCE
FUN FACT**

Astronomers believe that they have found evidence of the collision of two massive [black holes](#) in a galaxy some 3.5 billion light years away. Bursts of high frequency radiation, theoretically caused by a Doppler effect as the two black holes circle one another, provide evidence for the collision.

4

School Administrators and the NGSS

School administrators play a critical role in the implementation of the NGSS. Classrooms that shift to NGSS-aligned instruction begin to look different as educators engage their students in explaining phenomena and solving problems. Administrators who step into an NGSS-aligned classroom will see teachers facilitating their class using a student-centered approach.

Students will use the scientific and engineering practices and apply crosscutting concepts to deepen their understanding of core ideas in science. In the past, school leaders may have been able to glance through a classroom doorway and see students listening to the teacher's lecture each day. NGSS-aligned classrooms will exhibit instruction that engages students in the scientific and engineering practices (e.g., analyzing and interpreting data, asking questions, etc.) and administrators may see students discussing a question in small groups, designing a device, or arguing their ideas with evidence.

School leaders are instrumental in supporting educators in their efforts to transform their classrooms and to make the instructional shifts called for by the NGSS. School leaders also have critical roles in communicating the message to teachers that these efforts will be beneficial for students.

5

Bringing Authentic Practices to Curriculum Redesign

Working to integrate the NGSS into your existing curricula? In Seattle, WA teachers are working to implement the three dimensions of the NGSS as they redesign their STEM curricula. Read a description of their experience and find a link to useful NGSS tools [here](#).

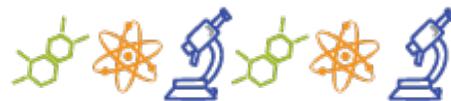
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6

NGSS in the News

[Teachers, admin spend summer learning in Mount Laurel](#)

By Jenn Lucas, The Central Record
September 3, 2015



"While students spent their summer relaxing, teachers in the district were busy learning how to improve curriculum. This summer a team of teachers revised the technology curriculum to align with the 2014 New Jersey Core Curriculum Content Standards (NJCCCS)."

Opinion

7

[Equity and Diversity: The Heart of NGSS](#)

By Jessica Holman, At Holm with SullyScience
August 18, 2015

"This summer, I took a step and joined a book study. I was not really sure what the book was about, but I wanted to use my time this summer to squeeze in a learning opportunity. The book was "NGSS for All Students". This book is centered on the new Next Generation Science Standards. While talking about the design of the standards, the book also provides real life examples of teachers implementing the standards."

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8

[NGSS: Built for Equity and Diversity?](#)

By Tom Hathorn, CORElaborate
September 5, 2015

"Lately I've been learning about a less-heralded feature of NGSS: equity and diversity. Actually, the more I learn, the more that I realize that it HAS been heralded loudly, but I'm only just now hearing it."

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