

NGSS NOW

9 things you need to know about the NGSS this month



August 2016

1 New Resource: Second release of NGSS Example Bundles

The Example Bundles (formerly known as the Model Content Frameworks for Science) will show samples of ways to bundle the NGSS within a school year. "Bundling" is an important strategy for implementing standards, as it brings coherence to instruction and greatly reduces the amount of instructional time necessary.

In June, we released the first set of Example Bundles which featured the following resources:

- Kindergarten Bundles (Thematic Model and Topics Model)
- Middle School Course I Models (Phenomenon and Topics Model)
- High School Course I Models (Conceptual Progressions Model and Domains Model - Chemistry)
- NGSS Example Bundles Guide

This month, we are releasing the second set of bundles which highlight the following resources:

- 1st Grade Bundles (Thematic Model and Topics Model)
- 4th Grade Bundles (Thematic Model and Topics Model)
- High School Course II Models (Conceptual Progressions Model and Domains Model - Physics)

All of the currently available NGSS Example Bundle resources can be viewed [here](#).

The remaining sets of example bundles will be released in coming months and will ultimately cover all grade levels. This rollout will help ensure that curriculum developers for science, including educators and commercial publishers, have a broad set of examples to consider in preparation for the 2016-17 school year.

2 Bundling Standards

Here's an example of how middle school

3 Science Phenomenon

This month's Science Phenomenon is geared

PEs* could be bundled in order to develop an instructional unit that engages students in science phenomena.

[MS-PS4-2](#): Develop and use a model to describe that waves are reflected, absorbed, or transmitted through various models.

[MS-ESS2-4](#): Develop a model to describe the cycling of water through Earth's systems driven by energy from the sun and the force of gravity.

As they implement the standards, teachers, principals, and district leaders might consider the questions below when discussing how to align instruction to the standards:

- a. What type of lessons can teachers develop to help students build toward this bundle of PEs?
- b. How could a classroom discussion about this month's "Science Phenomenon" (see right) help engage students around this bundle of PEs?
- c. How can principals better evaluate and support teacher leaders as they work to support their colleagues?

**For a more in-depth look at these NGSS PEs 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](#) (pages [131](#) and [184](#)).*



toward middle school students. This illustrative example offers teachers a potential way to connect our Standards of the Month (August 2016) to a real-world phenomenon that middle schoolers can ask questions about:

Coastal regions have a more moderate climate than do regions further inland.



Below are some high-level lines of student inquiry that could help middle school students facilitate their understanding of DCIs related to the featured science phenomenon:

- Why is the water warmer than the land in the winter and cooler than the land in the summer?
- How long does it take for the sun to heat up the ocean in the summer?
- Why does the water temperature affect the climate of the nearby land?

To see some additional ways that educators are engaging students with phenomena, go [here](#) and [here](#).



**Upcoming Professional Learning Opportunity:
EQIP Rubric Training in California**

Do you lead or coordinate professional learning for California teachers who are implementing the Next Generation Science Standards (NGSS)?

Achieve is hosting a two-day training in which participants will gain a deeper understanding of the EQulP rubric, how to use the rubric to evaluate NGSS lesson and units, and how the rubric can be incorporated into professional learning for educators.

The training will be August 24th and August 25th in Mather, California and there is no cost to participate! We have a limited number of spots and registration will be on a first come, first served basis.

To learn more and register for this event, [click here](#).

5 12 Incredible Women You've Never Heard of Who Changed Science Forever

By Meghan Bartels,
Business Insider
July 25, 2016

Sure, most people have heard of Marie Curie and Rosalind Franklin, Jane Goodall and Sally Ride. But for every female scientist whose work has been recognized and celebrated, there are thousands who have been accidentally or purposefully forgotten. For a few, that might change, thanks to a beautiful new book, "Women in Science: 50 Fearless Pioneers Who Changed the World," by artist Rachel Ignotofsky. [Read more](#).

NGSS in the News

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[New standards turn students into scientists](#)

By Deborah Sullivan Brennan,
San Diego Union Tribune
July 22, 2016

Students will act as scientists under a new set of science education guidelines that emphasize asking questions and solving problems, and the state is seeking input on how that will shape classroom instruction.

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[Next Generation Storylines Advance Science Teaching](#)

By Marilyn Sherman,
Northwestern School of Education and Social Policy
July 20, 2016

The SESP Next Generation Science Storylines Project is developing innovative units to provide teachers with curriculum materials as they adopt the Next Generation Science Standards (NGSS). Across the country, classrooms geared to NGSS reflect a new vision of science teaching.

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The Santa Clara Valley Signal
July 20, 2016

This week, College of the Canyons hosted a group of more than 50 local fourth and fifth grade elementary school teachers as part of a four-day outreach training session in preparation for the implementation of Next Generation Science Standards (NGSS), which were formally adopted by the State Board of Education in September 2013.

"Our college is deeply committed to supporting our K-6 partners by identifying the most effective hands-on activities to engage elementary school students," said Omar Torres, dean of the college's School of Mathematics, Sciences, and Health Professions.

"The four elementary school districts are very fortunate to partner with College of the Canyons to provide local teachers with the opportunity to expand their science knowledge, collaborate with teachers across the Santa Clarita Valley, and to begin our work in planning NGSS lessons," said Kathy Harris, assistant superintendent of Instructional Services for the Sulphur Springs Union School District. "This training will help ensure that our students will be excited, engaged scientists."

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By Kate Cook Whitt,
Teaching Channel Blog
July 14, 2016

The Boeing Company has teamed up with Teaching Channel to create 10 Science and Innovation curriculum modules as part of the company's 100th anniversary, which is being celebrated for the next 100 days. The modules, which were originally designed by teachers paired with Boeing engineers, have undergone multiple stages of revision designed to adapt them to better meet the goals of the Next Generation Science Standards (NGSS).

Developing new materials is a productive and effective way to engage students in three dimensional learning. Developing new materials that are high quality, however, doesn't happen instantaneously. As teachers and module designers develop high quality materials over the next several years, it may help to adapt existing materials to engage students in three dimensional learning.

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