

# NGSS NOW

9 things you need to know about the NGSS this month



June 2016

## 1 Coming Soon: Example Bundles - A new resource that explains and demonstrates *bundling*!

"Bundling" is an important strategy for implementing standards, as it brings coherence to instruction and greatly reduces the amount of necessary instructional time. The concept of "bundling" NGSS performance expectations (PEs) has been presented in a Question of the Month in [past issues](#) of NGSS Now.

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. These samples, and the explanations in the Example Bundles Guide, will be useful to curriculum developers and leaders in local schools and districts. Additionally, these samples can provide greater clarity to publishers by identifying key elements of NGSS-aligned curriculum.

This comprehensive resource will be released in multiple phases, with the first scheduled for the end of June. In order to ensure that educators working to develop curriculum over the summer have relevant examples - as similar to their instructional level(s) as possible - each phase of the release will include information spanning both elementary and secondary grade bands.

Additionally, a public webinar will be conducted on June 28 at 7 p.m. ET. You can register for the webinar [here](#) and sign up [here](#) to receive email updates about this, and other resources.

## 2 Bundling Standards

Here's an example of how elementary school PEs\* could be bundled in order to develop an instructional unit that engages students in science phenomena.

## 3 Science Phenomenon

This month's Science Phenomenon is geared toward 3rd grade students. This illustrative example offers teachers a potential way to connect our Standards of the Month (June 2016) to a real-world phenomenon that third-graders can ask questions about:

*During a thunderstorm, there are often strong*

[3-ESS2-1](#) Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.

[3-ESS3-1](#) Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard.

[3-5-ETS1-3](#) Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

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 [114](#), [192](#), [206](#), and [208](#)).*



winds that damage roofs.

Context for the teacher: During thunderstorms, currents of very cold air and precipitation such as rain or hail [can blow down from storm clouds](#). The location at which the air and precipitation first hits the ground experiences the highest winds and greatest damage, and in some instances this can be life-threatening.



Below are some high-level lines of student inquiry that could help 3rd graders facilitate their understanding of DCIs related to the featured science phenomenon:

- Why do thunderstorms have such strong winds?
- Do we know when a thunderstorm will come?
- Why do some roofs blow off during a thunderstorm while others don't?

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

**Q:** I'm looking for professional development on the NGSS. Where can I go to find it?

**A:** Many states and districts are conducting trainings on the NGSS throughout the school year and summer. Interested parties should contact their local school or district's leadership and/or visit the district and/or state websites for specific information about upcoming trainings. Additionally, the National Science Teachers Association ([NSTA](#)) provides a variety of NGSS-based [training resources](#), including many face-to-face professional learning experiences [this summer](#). This page organizes links to some of their free online professional development presentations, as well as to other resources: [Science for All](#).

---

## 5 NGSS Resource: Teaching and Learning Under the Next Generation Science Standards

Community for Advancing Discovery Research in Education  
February 1, 2016

This [STEM Smart Brief](#) offers lessons learned from successful schools. It also reviews many of the current advances in research-based curriculum development and assessment design related to instruction of the NGSS.

---

## NGSS in the News

### 6 [SMS Teacher Explains Future of Science Education in Delaware](#)

By Laura Walter,  
Costal Point  
May 13, 2016

"At Selbyville Middle School in Delaware, inside Jennifer Hitchens' sixth-grade classroom, the learning experience is flipped. Hitchens is helping the state to shift from traditional teaching, where the teacher is a "master" who passes along knowledge. Instead, under the new model, the teacher is a guide, walking the educational path with children.

"If you present a kid with a phenomenon that's interesting to them, they'll be invested in learning it," Hitchens said. "They're motivated because they want to know the answer."

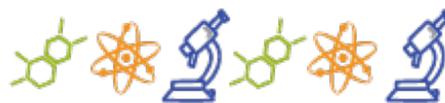
[Tweet](#) [Share](#)

### 7 [Don't Reinvent the Wheel: Making the Transition to NGSS Easier](#)

By Kyla Burns,  
Teaching Channel  
May 6, 2016

"NGSS does not mean reinventing the wheel. It means changing the sequencing of the activities taught to create a meaningful storyline. It means being purposeful in how a unit is designed, and being explicit where each aspect of the three-dimensional learning is occurring. NGSS implementation does not mean abandoning activities that we already teach and enjoy."

[Tweet](#) [Share](#)



### 8 [Science Classes Collaborate on](#)

### 9 [Ten Years a Teacher: Pondering Purpose](#)

## [Mountain View High Space Project](#)

By Traci Newell, *The Los Altos Town Crier*  
May 11, 2016

"Last month students taking biology, earth science and AP Physics C: Electricity and Magnetism classes collaborated on the release of a stratospheric balloon they built.

"The students designed the balloon to reach an altitude of 20 miles and travel a distance of 80 miles to land in the Central Valley, 30 miles southwest of Fresno.

"'From the beginning, this was an interdisciplinary project,' said Stephen Widmark, physics teacher and head of Mountain View High's new space program. 'Our motivation was to have different classes work together. We are getting away from studying factoids and getting students to really do science,' he said."

[Tweet](#) [Share](#)



By Anna Van Dordrecht,  
*Sonoma County Office of Education*  
May 27, 2016

"[The] NGSS and the larger umbrella of STEAM both have incredible power to help students live the dreams they dream. NGSS has a focus not just on content knowledge but developing an understanding of the larger picture of science and the practical skills for thinking and acting as a scientist or engineer. All of these attributes make students more marketable in the 21st Century.

"STEM, and now STEAM, education similarly represents a chance to acquire the job skills and integrated knowledge that are more and more often desired or required for careers.

"But as an educator, I want more for my students than simply having the ability to pursue any dream. I want them to have dreams with purpose, dreams that are thoughtfully developed and bring together their passions and interests with the needs of the world around them."

[Tweet](#) [Share](#)

