


NGSS NOW

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



September 2015

1 Innovation in NGSS Instruction

Instruction aligned to the NGSS represents significant innovations in science classrooms. One of the biggest innovations is that instruction based on the NGSS involves students using their understanding of fundamental science principles to make sense of phenomena (things that happen that students can see in the world around them). As such, expecting students to learn a "standard of the day" that is written on the board is unrealistic. Students need science classes that allow them to build learning related to multiple standards, or a bundle of standards, (see page three [here](#) for more on bundles) over a longer period of time. Some additional examples of the differences in science education that the NGSS can foster can be found in this [chart](#).

2 QUESTION OF THE MONTH

Q: I'm looking for resources that provide a quick overview of the three dimensions in the NGSS in an easily-accessible way. What do you recommend?

A: Some resources you might find helpful are the [videos posted online](#) that [provide a brief introduction](#) to the [Science and Engineering Practices](#), [Disciplinary Core Ideas](#), and the [Crosscutting Concepts](#).

3 Standard of the Month

[MS-LS2-2](#): Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems. 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 150).





SCIENCE FUN FACT

Scientists recently discovered that some species of spiders are able to glide and steer through the air like paragliders.

Over 90% of those tested in the [study](#) were able to maneuver through the air to land in a nearby target location.

Highlighted Resources

4

Confused about the grade-banded standards in middle and high school? Not to worry-the NGSS writers provided models in [Appendix K](#) to illustrate the possible ways instruction can be divided by grade levels in middle and high school. These are only suggestions - final decisions about how to divide the content by grade levels are up to each individual state and district that decides to implement the NGSS.

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5

Looking for help on how to support engineering education in K-12 classrooms and out-of-school settings? Check out the National Academy of Engineering's [new website](#) to learn more about the big ideas in engineering, connect with others, and locate resources. Since the NGSS calls for integration of science with engineering design, stay tuned for future resources on [www.LinkEngineering.org](#) that integrate science and engineering.

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NGSS in the News

6

[What to Know About the Next Generation Science Standards](#)

by Brian Witte, TIME Magazine
August 11, 2015

"They are not a curriculum, but a series of goals and best

7

[Want to sustain ag and engineering? Promote real science education](#)

by Midge Yergen, The Yakima Herald
August 21, 2015

8

[My View: New science standards empower students](#)

by Bradford Hill, The Portland Tribune
August 27, 2015

practices that are intended to inform teachers' science instruction."

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"As a 38-year veteran science educator, I appreciate the importance of both agriculture and engineering and the real-life connections between what students are learning in the classroom and what is happening in the world around them. The state's new science education standards promote the learning of both."

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"When we return to school in the fall, teachers and students will dive into an exciting new era of learning in science."

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Opinion

9 [To Parents... The WHY, HOW, WHAT of the Shelton Class](#)

by Tricia Shelton
August 2, 2015

"Empowerment, Choice, Independence. These are words I use to describe what I wish for my High School students; that when they leave us after twelve years of education, they are prepared for that Next Step of their choosing."

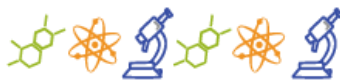
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10 [Reflecting and Preparing](#)

by Nathan Lockhart
August 11, 2015

"I approached the year like any other except for the excitement of NGSS! My plans were big and expectations even bigger."

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11 [Practice What We Preach](#)

by Holly B. Steele
August 15, 2015

"Every teacher knows that you have to differentiate your instruction to meet the diverse needs of all students in our classrooms. Well, my students are really teachers and they are just as diverse, if not more so, than the students I used to serve."

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