

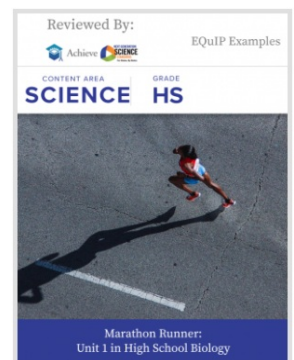
# NGSS NOW

## 8 things to know about quality K-12 science education in July 2019



### 1 New High-Quality Example Unit

The [Science Peer Review Panel \(PRP\)](#) has identified a new high-quality unit designed for the NGSS: A high school Life Science unit, [Marathon Runner: Unit 1 in Biology](#). If you haven't looked in a while, the PRP has now posted [15 quality units](#) that have been freely and publicly shared by their developers, including four elementary units, six middle school units, and five high school units. The high-quality example units can provide a great basis for teachers in your state to experience what three-dimensional instruction looks like. Each unit also includes a thorough report on the strengths and weaknesses of the unit and suggestions for improvement based on the [EQulP Rubric for Science](#).



### 2 Features of Classroom Culture that Support Equitable Sensemaking

| Feature   | Indicator   | Observation |
|---|---|-------------|
| 1. <b>EQulP is applied to all included forms, lessons, and/or units.</b><br>All inverts are supported in the classroom culture.   | <ul style="list-style-type: none"><li>EQulP inverts are used in all science learning opportunities to:</li><li>Ensure all students are supported in the classroom culture.</li><li>Ensure all students are supported in the classroom culture.</li></ul>  |             |
| 2. <b>EQulP is used as a tool for reflection.</b><br>Students use the inverts to reflect on their own learning and the learning of others in the classroom.                 | <ul style="list-style-type: none"><li>The teacher is not the sole holder of knowledge in the classroom. Students and teachers learn from each other.</li><li>The focus is on all participants (students and teacher) and their learning. The focus is on all participants (students and teacher) and their learning.</li><li>Students are encouraged to share their own learning and the learning of others in the classroom.</li></ul> |             |
| 3. <b>EQulP is used as a tool for reflection.</b><br>Students and the teacher use the inverts to reflect on their own learning and the learning of others in the classroom. | <ul style="list-style-type: none"><li>Learning is meaningful when students and teachers connect their own learning and the learning of others in the classroom.</li><li>Learning is meaningful when students and teachers connect their own learning and the learning of others in the classroom.</li></ul>   |             |
| 4. <b>EQulP is used as a tool for reflection.</b><br>Students and the teacher use the inverts to reflect on their own learning and the learning of others in the classroom. | <ul style="list-style-type: none"><li>Learning is meaningful when students and teachers connect their own learning and the learning of others in the classroom.</li><li>Learning is meaningful when students and teachers connect their own learning and the learning of others in the classroom.</li></ul>   |             |

As part of their Professional Learning Resources, OpenSciEd has released a [valuable tool](#) that educators, coaches, and administrators can use to set goals, create strategies, and observe equitable practices in a science classroom. The tool is centered around four criteria that gauge equity in a science classroom from different perspectives such as, "who is treated as a 'knower' in the classroom?" and "what science is practiced in the classroom?"

### 3 Partnerships in Delaware Schools Create Authentic Contexts to Learn Science

This [article](#) showcases several ways partnerships can bring relevant and authentic science contexts for learning to a

science classroom. It tells the story of a district partnering with a [nonprofit](#) to bring a focus of authentic and relevant environmental matters to the students, partnering with a higher education institution so teachers could learn about genre-based writing strategies to support students in communicating their science understanding, and giving students the opportunity to interact with an ecologist and herpetologist through the [Skype a Scientist](#) program. These examples show the power behind districts establishing a network with external partners to secure community support, expertise, and financial assistance for ongoing education needs.

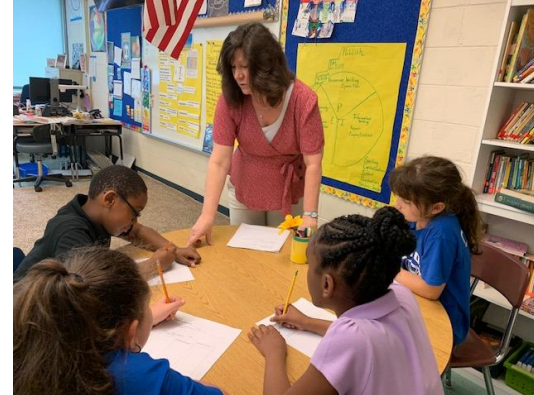


Image credit: Green Schools National Network

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#### 4 NGSNavigators Podcast: Meet a 6th Grade Teacher: Gillian Luevano



In the latest [NGSNavigators podcast](#), a 6th grade science teacher, Gillian Luevano, candidly shares her own journey with implementing the NGSS in her classroom. Gillian shares valuable insights from her struggles with the NGSS, the lessons she's learned along the way, and her strategies for implementation - such as the importance of collaborating with teachers in other disciplines. Gillian also shares valuable resources that she has used in her classroom, along with advice for teachers who are new to the NGSS.

And in case you missed it, our very own Aneesha Badrinarayan discussed three-dimensional science assessment and the Task Annotation Project in Science on the NGSNavigators podcast in late May - make sure to check out [her episode](#) as well!

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#### 5 STEM Students: Arts Improved Our Soft Skills

This Education Dive [brief](#) emphasizes the importance of STEM classes in developing not just technical knowledge, but also skills such as critical thinking, problem solving, communication, and collaboration that help students become well-rounded candidates to future employers. In a recent summit, students pursuing STEM careers acknowledged the value of soft skills they gained from being involved in the arts - such as acting in plays or working at an art gallery. This realization again stresses that educators should not have to choose between teaching STEM and developing soft skills; rather, the two can be incorporated in STEM classrooms in order to help students graduate college and career ready.



Image credit: Education Dive

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#### 6 New STEM Teaching Tool: Using Science Investigations to Develop Caring Practices for Social-Ecological Systems

The latest [STEM Teaching Tool](#) focuses on ways to help all learners to be present for other species in

challenging ecological times. Science educators can use local or place-based phenomena to make STEM learning relevant for students and to facilitate the development of responsible relationships with their surroundings.

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## 7 From the NSTA Blog: Impact of Change

A [post](#) on the NSTA blog by Kentucky science educators Jessica Holman and Michelle Schuster digs into their experiences coming to a deep understanding of how the three dimensions of the NGSS support one another and have come to transform their classrooms. They share the successes they've experienced in developing storylines to build student understanding and to give students a voice in their learning.

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## 8 From the Hechinger Report: OPINION: How to Get Girls into Science



*"For girls, whether or not they chose to do more science was related to what they were told. When girls heard they were "doing science," they wanted to continue; when they were told they were "being scientists," they were less interested in going on. For boys, what they heard didn't have the same effect.*

*"When I frame things like picking apart a whole fish at dinner or measuring ingredients to make pancakes as 'doing science,' my daughter jumps at the chance to participate. When girls view science as an activity they can partake in, they're more likely to push themselves*

*and pursue STEM opportunities. When we change how we talk to girls about STEM, we change how they view science."*

Read the full article [here](#).

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