

NGSS NOW

7 things to know about quality K-12 science education in **April 2020**



NGSS Now Readers,

Our thoughts are with you in this tumultuous time and we hope you are staying safe and healthy. Science matters more than ever before, and we are grateful to you for working tirelessly to find ways to support the next generation of scientists during this extended and uncertain period of remote learning.

The science education community's response has been extraordinary, sharing an abundance of resources online to help students make sense of the world around them through distance learning. We will continue doing our part to share curated stories, updates, and key resources to support your work. We know that students never stop learning and we look forward to working together to design new ways to engage all students with science. We see this as an opportunity to more intentionally design science experiences that engage students' families, identities, and interests while strengthening the science education community.

Thank you for all you do.

1

Three New Quality Examples of NGSS Design Identified by Science Peer Review Panel Posted

1st Grade: Sounds

This unit, developed by the [K-12 Alliance](#), is the first half of a physical science learning sequence on sounds and light. Students make sense of the anchor phenomenon -- the sound made by emergency sirens -- through three-dimensional learning experiences.

See the unit and its EQuIP review [here](#).





4th Grade: Why do some things wash up on the beach and others don't?

This [NextGenStoryLines](#) unit is the 2nd elementary unit and 10th unit overall to earn the [NGSS Design Badge](#). In this unit, students engage in science practices to make sense of why so many bags of chips have washed up on a beach, using concepts about wave properties and large-scale system interactions.

See the unit and its EQuIP review [here](#).

Middle School: OpenSciEd Unit 6.3 Why Does a Lot of Hail, Rain, or Snow Fall at Some Times and Not Others?

This [OpenSciEd](#) unit supports students with exploring phenomena related to weather, climate, and water cycling. Over the course of the unit, students figure out how hailstorms can occur on a warm day, why some clouds produce storms with large amounts of precipitation and others don't, and what could be causing a large-scale storm and why it would end up affecting a different part of the country a day later. A webinar about this unit will be archived [here](#).



See the unit and its EQuIP review [here](#).

2 New STEM Teaching Tool: Why you should stop pre-teaching science vocabulary and focus on students developing conceptual meaning first



"Many science educators focus on pre-teaching technical vocabulary at the start of the unit to help students become comfortable with science discourse. This approach is especially common with students from historically marginalized communities, in particular emerging multilingual students. However, it is much more productive to support learners as they organically develop language (terms, phrases) that interprets and explains phenomena, rather than asking them to merely acquire terms."

See the resource [here](#).

3 The Art of Making Science Accessible and Relevant to All Students

"Centering science lessons on phenomena that are universal-like light-or deeply rooted in a region's culture or location-like the hala plant-can make science more relevant and interesting for students. But they can also have a powerful role in building equity, since all students begin with something they know. ... [Collaborative projects](#) [link added] have been springing up around the country to help teachers create equitable lessons anchored in natural phenomena."



Read the full article [here](#).

4 Concord Consortium Online Learning Resources

Concord Consortium, a nonprofit educational research and development organization and co-developer of the high-quality high school [Interactions units](#), has posted open resources for a virtual classroom.

Find out more [here](#).

5 Archived NSTA Webinar: Science Update: COVID-19: Don't Panic but Know the Science

"Turn on any TV, look on social media and you'll hear about the coronavirus and COVID-19 but what do you really need to know about it? Join NSTA for a web seminar to learn more of the science about what this virus is, where it came from, and how it makes us sick. Attendees will also learn about the science behind testing, social distancing, infection rate, and prevention. Learn about this virus in the context of other infectious diseases such as influenza and measles."



Watch the webinar [here](#). For access to additional resources, [NSTA](#) is offering 30 days of free membership. They are also offering a [Daily Do](#), a daily at-home science activity that can be used by educators and families.

6 NGSSPhenomena Virtual Learning

NGSSPhenomena is creating a collection of virtual science education resources for students and parents. Each resource includes a phenomenon and resources that can be printed as PDFs or shared via google slides.

See the growing list of resources [here](#).

7 With Schools Closed, Kids With Disabilities Are More Vulnerable Than Ever



"But there's been one big hiccup to all this: What, exactly, to learn during these at-home sessions? Some of Jacob's teachers have sent packets home - one, for a science class, includes a video and a worksheet on wolves - but teachers haven't included any of the modifications, or 'accommodations' he normally gets that are designed to adapt the lessons to his learning style."

Read the full article [here](#).

