Overview

The COVID-19 pandemic is a clear example of how science and society are connected. Across each of the COVID-19 & Health Equity units, students explore how communities are impacted differently by the virus through the lens of historical inequities, and consider how they can take action to prevent further spread.

Units use the OpenSciEd Instructional Model, a storyline approach - a logical sequence of lessons motivated by students' questions that arise from students' interactions with phenomena. The units also include integrated social-emotional learning and supports for teachers and families in addressing these emotional and essential topics.

The OpenSciEd team and developers offer a free webinar series that provide unit overviews and answer questions that educators might have about how to enact these units regardless of their teaching situation this year or in the future. Register for upcoming webinars, view archives, and download the units.

We are conducting a field trial to gather information from teachers and students that will inform revisions to the middle school unit. The trial will be conducted from January through March 2021. You can learn more and apply.
The Unit Developers

The elementary units were developed in partnership with NextGen Science Storylines (at Northwestern University) and Learning in Places (at Northwestern University and University of Washington) and the Middle and High School units were developed with BSCS Science Learning. All units had current classroom teachers from across the country, epidemiologists, public health experts, educational equity experts, community groups, and social-emotional learning experts participating in their development.

About the Units

Units for Elementary School

Materials include 15 days of instruction (assuming 40 minutes of instruction/day). The materials guide students and families through the following questions:

- How have our lives changed because of COVID-19?
- Why have those changes happened?
- What should we do to care for ourselves, our families, and our communities?

The elementary unit includes Family Tools that go home to families before the teacher starts the unit in school, and the tools continue to bring family knowledge and practices into classroom conversations throughout the unit. Family Tools support families' and teachers' understanding of the science of COVID-19, cultural frames around illness and death, equity and social justice, social-emotional learning, and decision-making. They connect the ongoing work in the classroom to conversations with families.
The unit fits well into the beginning of the year when elementary teachers are establishing relationships with families and students are building their classroom community. However it could be taught at any time during the year and because it is multi-disciplinary, this unit could be taught during ELA, SEL, science, and/or social studies times. Access the free elementary units or find additional information.

**Middle School Unit: How can people help end pandemics?**

This unit is designed to teach students about the COVID-19 pandemic, transmission of the COVID-19 virus, and the impacts of the pandemic on communities. Over the course of the unit, students will study the COVID-19 pandemic in light of historical pandemics to build an understanding of the following key concepts:

- How the COVID-19 virus spreads from person to person and through communities
- How strategies to reduce transmission of COVID-19 work
- How the actions of individuals can help to end pandemics

The unit is designed for 15 class periods of instruction, with optional extensions. The unit also supports the development of two social emotional competencies: self awareness and social awareness. Because of its interdisciplinary nature, it can be used in middle school science, social studies, or health classes.
High School Unit: How can we slow the spread of the COVID-19 virus to protect our communities?

This 3-week unit focuses on the science of COVID-19, its transmission, and strategies for controlling it. Students will learn how different factors determine the ways COVID-19 is affecting different communities across the U.S. The materials provide an opportunity to support students in understanding COVID transmission, how they can act to protect themselves and others, and how and why COVID impacts BIPOC across the U.S.

The unit integrates disciplines to explore how structural inequalities affect public health outcomes and why collecting data and community action is so important during public health emergencies.

About OpenSciEd

OpenSciEd is a nonprofit bringing together educators, philanthropic organizations, curriculum developers, and professional learning providers to improve science education by developing high-quality, freely available science materials. We are currently developing materials for grades 6–8 with a plan to release a full K–12 curriculum, ensuring that all educators have access to free, coherent, rigorous, research-based instructional materials. We are guided by the vision for science literacy described in the Next Generation Science Standards and supported by 10 partner states in the development of the materials.