

National Geographic Learning Exploring Science

Grades 1–5

Focus on the Next Generation Science Standards



This new program provides all the support you need to teach the Next Generation Science Standards with confidence, and to ensure your students master 21st century science skills. Seamlessly combine instruction in Science and Engineering Practices, Disciplinary Core Ideas, and Crosscutting Concepts so your students can meet the new rigor of the NGSS. With print and eBooks available in both English and Spanish, all students are assured the best solution to meet your science literacy classroom needs.



- Cover 100% of the NGSS for grades 1–5 with dramatic photos and targeted science content.
- Introduce real-world science research with National Geographic Explorers, scientists, and photographers.
- Combine with National Geographic Science for the best quality science and NGSS solution available.

THINK LIKE A SCIENTIST

Bay Bridge Case Study

For the past 14 years, architect **Marwan Nader** has devoted himself to making sure that history doesn't repeat itself.

Problem

It was on Oct. 17, 1989, when Nader was a graduate student at the University of California at Berkeley, that the Loma Prieta earthquake struck. Registering 6.9 on the Richter scale, the quake caused massive damage throughout much of Northern California and caused a section of the Bay Bridge in San Francisco to collapse.

The most important link between the East Bay and San Francisco remained closed for an entire month, stopping the area's economy in its tracks.

Inspections of the eastern sections of the bridge showed significant damage, and officials concluded that the erector-set design of the bridge would eventually have to be torn down and another bridge rebuilt.

46 **NGSS DISCIPLINARY CORE IDEAS: NATURAL HAZARDS**
A variety of forces result from natural processes (e.g., earthquakes, tsunamis, volcanic eruptions). Humans cannot eliminate the hazard but can take steps to reduce their impacts.

Eight years later, Nader was chosen as the lead design engineer to rebuild the eastern part of the bridge that links Yerba Buena Island to the shores of Oakland. Because he lived through the devastation of the '89 quake, Nader said the new bridge had to be rebuilt to withstand even stronger earthquakes than the one that damaged the original bridge.

"The Bay Bridge has to serve as a lifeline between San Francisco and the East Bay in the event of an earthquake. It is what will be used for ambulances, fire trucks and police in the moments after a big quake."

Print and eBooks available!

Teacher Support

Teacher's Guides for each grade provide all the support needed to implement and assess the NGSS. Complete the NGSS Performance Expectations for each grade with lessons on Disciplinary Core Ideas, Science and Engineering Practices, and Crosscutting Concepts.

Student Support

Provide students with all the tools they need to be successful with the NGSS. National Geographic visuals and content focus student attention on understanding and engaging with the NGSS. Print and eBooks are available in both English and Spanish.

A test-prep App for all mobile devices supports student understanding of the Disciplinary Core Ideas at grades 3–5. The free App is available in English and Spanish.

