

How to teach climate science

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Kelley Le, director of UCI Science Project. Credit: Carissa Woo

The big glitch in California's new science education standards, which focus heavily on climate change, is that few schoolteachers have the background to conduct lessons on the subject, says Kelley Le, director of the UCI Science Project.

Even [new teachers](#) generally receive scant training about the topic in college, she adds, and public-school textbooks largely dodge the issue. To help bridge that gap, Le—a former high school chemistry and nanoscience instructor—organized climate change boot camps for educators as part of her doctoral dissertation at UCLA. That, in turn,

inspired her new book, "[Teaching Climate Change for Grades 6-12: Empowering Science Teachers to Take On the Climate Crisis Through NGSS](#)." (NGSS stands for Next Generation Science Standards, a multistate curriculum effort.)

Drawing on expert advice from NASA, the National Oceanic and Atmospheric Administration, [climate scientists](#) and more than 50 environmental nonprofits, the book is a primer on rising worldwide temperatures and suggests ways to "get students to think about how climate change affects them directly and how they can take action to fix it," Le says.

She recommends that educators highlight "local impacts of climate change that connect with global climate issues," such as "how buying a bag of chips ties in with deforestation in Southeast Asia." In California, another possible springboard to the subject is the drought, wildfires and heat wave gripping the western U.S., she says.

The book doesn't offer a one-size-fits-all curriculum, Le notes. Instead, it "helps teachers navigate resources in each state" to create locally and culturally relevant lesson plans, she says.

Because [global warming](#) is a political hot potato, Le suggests using the phrase "environmental issues" instead of "climate change." And she cautions: "Do not debate climate change in class." With that in mind, the book also provides tips for imparting critical thinking skills that students can use to spot misinformation and "be more informed decision-makers," she says.

Le's book approaches [climate](#) change "through a social justice lens" and aims to avoid gloom-and-doom scenarios in favor of helping students figure out what they can do to address the problem, she says.

She adds, "You don't have to know everything about [climate change](#) to do something about it."

Provided by University of California, Irvine

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