



Curriculum Units by Fellows of the Yale-New Haven Teachers Institute
2015 Volume III: Physics and Chemistry of the Earth's Atmosphere and Climate

Potential Causes of Climate Change

Guide for Curriculum Unit 15.03.03
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This curriculum unit was prepared in collaboration with another program participant, with the net goal to provide students in our co-taught course with the scientific and other skills needed to hold a debate on whether global warming and climate change are real. Students will consider potential main causes of climate change and how we, as humans on earth, can help prevent negative effects of climate change in the future. For the scientific basis of this debate, my unit covers the foundational knowledge our students need to understand climate change and its many complexities. Thomas Hager's *The Alchemy of Air* will be the first text we examine. To follow this text, we will focus on James Hansen's TED talk "Why I must speak out about climate change," *Scientific American's* "Behind the Hockey Stick," "The Nitrogen Cycle," and "What Do Farmers Think about Climate Change?" In conjunction with the readings, I will perform a series of experiments with our students, show them a variety of videos, take them on field trips, and have them be in control of their own learning by performing tasks around our school.

(Recommended for Environmental Science, grades 9-12)

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