



Climate Change Education Resources

What does climate change really mean? These lesson plans and resources investigate the impact of global warming on our health, food and water supply, and world politics. From science fiction stories to temperature graphs, these resources are multidisciplinary.

Background

- [Cellist turns 130 years of climate change data into music](#)
 - Summary: Using data sonification, Daniel Crawford turns global temperatures into music notes. The resulting piece, played on his cello, demonstrates rising temperatures through higher pitches.
 - [Read the report that supplied the data for the project here](#)
 - Common Core: Strengthen understanding of scientific texts by identifying the authors' purpose in describing a procedure and providing an explanation of an experiment. RST. 6. Have students consider different ways of explaining scientific data to the public.
- [Climate Change Debate](#)
 - Summary: Frontline interviews five leading proponents and skeptics of global warming's threats.
 - Common Core: Focus on integrating knowledge by comparing different perspectives on climate change and identifying inconsistencies or conflicting information between sources. RST.8.
- [Future Global Warming Impacts by Region](#)
 - Summary: This interactive map displays information on how each region of the world will potentially be affected by climate change. Strength of confidence in these predictions is listed as well.
- [Everything You Need to Know about Climate Change--Interactive](#)
 - Summary: This info graphic from *The Guardian* summarizes climate change information relating to politics, science and technology, and big picture causes and effects. It also allows users to submit their own questions on climate change.
 - Common Core: Use technology to create shared writing products in response to ongoing feedback, including new arguments and information. WHST. 6.

A Closer Look

- [Stars in the Haze](#)

- Summary: This 7 minute video features time-lapse images of Chinese cities enveloped in smog. Health experts explain what PM 2.5 readings actually mean and how they are measuring air pollution.
- [Political cartoons](#)
 - [Cartoon](#)
 - Common Core: Combine comics with other sources of information to address a question, challenging students to integrate knowledge and ideas from diverse formats. RH.7.
- [Film--More Than Honey](#)
 - This award winning film addresses the food crisis awaiting mankind if honey bees continue to disappear from the planet. Although the cause of colony collapse is complicated, pesticides and climate change are major factors.
- [Brazil faces drop in crops](#)
 - Summary: This article from the *Guardian* discusses how climate change will affect Brazil's food production. As Brazil is a major exporter of food products, this influences world food shortages and price hikes.
- [PBS-Mexico: Food or Fuel](#)
 - Summary: This 12 minute video from PBS Frontline highlights the unintended consequences of the growing demand for biofuels and green energy alternatives. As American demand for ethanol rises, fewer Mexicans can afford tortillas, a dietary staple.

The Future

- [Let's prepare for our new climate](#)
 - Summary: In this TED talk, Vicki Arroyo, executive director of the Georgetown Climate Center, examines how we should develop new infrastructure and policies to cope with climate change and superstorms. Ideas include drought insurance and elevated homes.
- [5 Ways to Hack the Planet](#)
 - Summary: This article from the *Guardian* explains the concept of geoengineering and investigates the feasibility of five different proposals to counteract climate change.
 - Common Core: Have students work in groups to create their own geoengineering proposals, strengthening skills in research to build and present knowledge. WHST. 7.
- [The Tamarisk Hunter](#)
 - Summary: In this science fiction short story, author Paolo Bacigalupi creates a dry world in which water is currency and the rich will do anything to protect their assets.
 - [Lesson Plan Resources for The Tamarisk Hunter](#)
 - Common Core: Strengthen understanding of key details and structure in literature by analyzing the central theme of the story and how Bacigalupi structures setting and events. Examine his use of flashbacks and conflicting motivations.

Lesson Plans

One Day Projects:

- [What's Up with the Weather?](#)
 - Summary: This NOVA activity has students graph temperature trends in the United States using the concept of the moving average.

Two Day Lessons:

- [Global Climate Change and the Ethics of Industry](#)
 - Summary: This lesson plan explores climate change on both a local and international level. Students calculate their own carbon footprint and watch a video about the future of the Maldives, an island nation threatened by rising sea-levels. Features research prompts, group projects, and oral presentations.
 - Common Core: Strengthens speaking and listening skills through use of digital media in presentations to enhance understanding of findings.

Unit Plans:

- [The Global Water Crisis](#)
 - Summary: This Pulitzer Center lesson plan examines water difficulties in Nepal, Ethiopia, Yemen, and Kenya. Students watch video clips, do independent journals, group work, research projects, and debates.