

Information



There are two tables on this page:

- 1 Information sources used by Lifelines teachers and are known to be useful in climate change education at the high school level.
- 2 Information sources under consideration for use in climate change education at the high school level.

[To add activities, in edit mode, use "Insert row" in the "Table" menu]

Table 1: Lifelines Teacher-Tested Information Sources

Resource with link	Comments give date, your name, description, value of resource or how you used it in a course. If it's in the Climate Literacy and Energy Awareness Network (CLEAN) collection, give that link as well.	Reviewed in CLEAN? with link
100 Views of Climate Change website	2013 Mar 10; Gould. http://changingclimates.colostate.edu – annotations and links to videos, podcasts, books, articles, essays, and websites that convey high-quality information in clear and appealing ways to non-specialist adults, including college-level students, their teachers, and the interested public.	
Climate Literacy and Energy Awareness Network (CLEAN)	2011 July; Chasteen: This is an invaluable resource for looking for reviewed lesson plans on energy and climate. New lessons are added every 6 months. 2012 March; Gould: Archived webinars on the Climate Literacy Essential Principles: <ul style="list-style-type: none"> • #1: The Sun is the primary source of energy for Earth's climate system • #2: Climate is regulated by complex interactions • #3: Life on Earth depends on, is shaped by, and affects climate • #4: Climate varies over space and time through both natural and human-made processes • #5: Our understanding of the climate system is improved through observations, theoretical studies, and modeling • #6: Human activities are impacting the climate system 	N/A
Inspiring Climate Education Excellence (ICEE)	2011 July; Chasteen: The ICEE project has online forums for discussing a wide variety of climate education topics. Please direct your PLC members there to seek answers for common questions or to post their queries/discussions. This can be a really valuable resource, but only if people participate	No
Learn More About Climate	2011 July; Chasteen: Our website includes information on teaching climate change in Colorado, including lesson plans and videos, as well as teacher-vetted educational links	Yes – "Mountain Pine Beetles" activity only
National Academy of Sciences Reports	2011 May; Gould Warming World: Impacts by Degree — Emissions of carbon dioxide from the burning of fossil fuels have ushered in a new epoch during which human activities will largely determine the evolution of Earth's climate. Climate Stabilization Targets — outlines the scientific information that makes it clear that emission reductions today matter in determining impacts that will be experienced over the next few decades and into the coming centuries and millennia. America's Climate Choices — Climate change is occurring. It is very likely caused primarily by the emission of greenhouse gases from human activities, and poses significant risks for a range of human and natural systems. And these emissions continue to increase, which will result in... Adapting to the Impacts of Climate Change — Across the United States, the impacts of climate change are already in evidence and projected future impacts will have significant consequences. The panel report calls for a national adaptation strategy to support and coordinate a decentralized network of adaptation efforts. Informing an Effective Response to Climate Change — As people, organizations,	No

	and governments move to limit the magnitude of climate change and respond to its impacts, demand for information to support climate-related decisions has grown rapidly. This panel report calls on the federal government to take the lead in coordinating climate-related information dissemination and management.	
NASA Resources	<ul style="list-style-type: none"> NASA Innovations in Climate Education (NICE) Resources for Teachers – https://nice.larc.nasa.gov/node/19 http://climate.nasa.gov/ – NASA Climate Change website. http://gcmd.nasa.gov/ – Global Change Master Directory http://idn.ceos.org – CEOS International Directory Network (Committee on Earth Observation Satellites) Sustainability Base: http://www.nasa.gov/centers/ames/events/2012/sustainability-base-presskit.html -- Info about Sustainability Base: http://www.nasa.gov/externalflash/sustainability-base -- Info about Ames' green technologies: http://www.nasa.gov/centers/ames/greenspace 	Yes – Various activities from climate.nasa.gov
National Center for Science Education website	2012 Jan; Gould. NCSE climate website: "Long respected for its work in defending and supporting the teaching of evolution in the public schools, in 2012 NCSE launched this new initiative to defend and support the teaching of climate change."	No
Presentation slides (.pptx) for Climate Change Unit at E.O Smith High School in CT	2011 May 26; Bent: Six powerpoints I use in my physics classes after teaching transfer of heat by radiation and Stefan-Boltzmann Law. They are attached to the previous information resources page on the Lifelines Leader's site.	
The Psychology of Climate Change Communication	2011 July; Chasteen: From the Center for Research on Environmental Decisions (CRED) at Columbia University. This is a really great resource summarizing how psychology ties in with either difficulty understanding climate change, or skepticism about it, along with helpful tips in how to communicate to get around those difficulties. Aimed primarily at communicating with the public but it's still helpful for educators. You can download a PDF or request a physical copy of the guide.	No

Table 2: Information Sources Untested by Lifelines Teachers

Resource with link	Comments give date, your name, description, value of resource or how you used it in a course. If it's in the Climate Literacy and Energy Awareness Network (CLEAN) collection, give that link too.	Reviewed in CLEAN? with link
13 federal agencies concerned with climate change.	2010 Dec; Gould http://www.globalchange.gov/	No
All you need to know about climate change	2011 Aug; Gould: An interactive at the Guardian website.	No
American Planning Association Policy Guide on Planning & Climate Change. – [PDF]	2012 Apr 17; Gould Adopted April 27, 2008 Updated April 11, 2011.	
CAMEL (Climate, Adaptation, Mitigation, E-Learning)	2012 April; Gould: CAMEL is a free, comprehensive, interdisciplinary, multimedia resource for educators, providing over 200 interdisciplinary topic areas and numerous resource types to give the educator the tools they need to teach about climate change-- causes, consequences, solutions and actions.	
Climate Change Handbook	2011 Jan 10; Gould: produced by Oregon State University College of Forestry. A concise explanation of climate change and guide for constructive action.	No
Global climate change: resources for environmental literacy	2011 Nov; Gould: by Environmental Literacy Council and National Science Teachers Association.	No
Climate Communication –	This is a non-profit project funded by the Rockefeller Brothers Fund and the ClimateWorks Foundation. It operates as a project of the Aspen Global	No

Making Science Heard and Understood.	ClimateWorks Foundation operates as a project of the Pappan Global Change Institute, a nonprofit organization dedicated to furthering the scientific understanding of Earth systems and global environmental change.	
EPA: Climate Change Indicators report	2011 Mar 5; Gould: The US Environmental Protection Agency 80 page report on the impacts of human-induced climate change. Summary documents: slide show (http://www.epa.gov/climatechange/indicators/pdfs/climate_indicators_slideshow.pdf), Summary of Key Findings (http://www.epa.gov/climatechange/indicators/pdfs/CI-summary.pdf) An excellent resource – includes temperature rise, heat waves, drought, precipitation increase, intensity of tropical storms, rise in ocean heat content, ocean surface temperature rise, sea level rise, ocean acidity increase, decreasing Arctic Ocean ice, glaciers melting, lake ice freezing later and thawing earlier, snow cover decreased, snowpack decrease, heat-related deaths, growing seasons longer, plant hardiness zones shifting northward, earlier leaf growth and flower blooms, bird wintering grounds moving northward.	No
EPA – A Student's Guide To Global Climate Change	2011 Nov 23; Gould: Includes information and an emissions "calculator."	No
Climate Interpreter	2011 Oct 25; Gould: Originally for informal education settings, specifically aquariums this web portal works for broader audience, now.	No
Gardening: Climate Resources Guide for Master Gardeners	This training guide was developed through CoCoRaHS (Community Collaborative Rain, Hail and Snow network) at Colorado State University. Master Gardeners are being trained in every state at Land Grant Universities. To become a Master Gardener, many hours of training are required on many gardening-related topics, including climate. Once they become certified "Master Gardeners" they do volunteer work in their communities—acting as subject experts and answering questions about many aspects of gardening.	No
Global Systems Science (GSS)	2011 Mar 10; Gould: Integrated science course focused on societal issues	No
Great Lakes Integrated Sciences and Assessments (GLISA)	2012 May 1; Bydlowski: GLISA Connect -- http://glisa.umich.edu	
Guide to Online Schools –	2010 Dec; Gould: Weather and Climate Resource page	No
National Research Council (NRC) / National Academy of Sciences	2012 Jul 8; Gould – <ul style="list-style-type: none"> Climate Change: Lines of Evidence booklet – http://nas-sites.org/americasclimatechoices/more-resources-on-climate-change/climate-change-lines-of-evidence-booklet/ 	
NOAA Climate Services	2010 Oct 25; Gould: <ul style="list-style-type: none"> NOAA RSS Feed is a great way to stay apprised of what's happening in the US Climate System: http://www.ncdc.noaa.gov/sotc/ Climate Services education site – Site has activities and professional development. Climate Watch Magazine 2012, Feb: Video – Climate Change: Impacts, Solutions and Perceptions – What scientific evidence exists that Earth's climate is changing? What's the difference between climate change and climate variability? How does a changing climate affect people and the natural environment? What can we do to lessen and adapt to the impacts of these changes? 	No
PolarTrec	2012-04-17; Gould: PolarTREC (Teachers and Researchers Exploring and Collaborating) is a program in which K-12 teachers spend 2-6 weeks participating in hands-on field research experiences in the polar regions. Site has journals from teachers and great photos, e.g. from Airborne Survey Of Polar Ice .	
RealClimate	2010 Nov 10; Gould: general website for "facts" Goodman: I use this as background. for example to be sure I understand what the greenhouse effect really is.	No
Scientific Guide to Global Warming Skepticism	2010 Oct 25; Gould	No
UNESCO Climate	2011 Mar 29; Gould	

Change Education programs		
Union of Concerned Scientists Climate 2030: A National Blueprint for a Clean Energy Economy	2011 Jul 22; Gould	No
Weather Underground Climate Change center	2012 Apr 22; Gould: Wunderground launches new Local Climate Change section , by: Dr. Jeff Masters. In honor of Earth Day on Sunday, wunderground has launched a new Climate Change Center, with resources to understand how the climate is changing both globally and in their local neighborhoods. The Local Climate Change feature allows one to see how temperature and precipitation have changed over the past 100+ years at the nearest station with a long period of measurements. Predictions from climate models on what the next 100 years may bring are overlaid for each station. http://www.wunderground.com/climate	
Wisconsin	2011 Apr 29; Gould: <ul style="list-style-type: none"> • Climate Wisconsin – Stories from a State of Change – http://climatewisconsin.org/ • Wisconsin Initiative on Climate Change Impacts (WICCI) 	Yes – Climate Wisconsin
Yale's 6 Americas Project on Climate Change Communication	2010 Oct; Gould. See also http://environment.yale.edu/climate/news/republican-views-on-climate-change/	No
U.S. Global Change Research Program (USGCRP)	2011 June 26; Gould Comment from Art Sussman: The best resource for regional climate impacts is the report from USGCRP, "Global Climate Change Impacts in the United States" at http://www.globalchange.gov/usimpacts	No