Multimedia

There are two tables on this page:

1 Multimedia that have been used by Lifelines teachers and

are known to be of value in climate change education at the high school level.

2 Multimedia 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 Multimedia

Resource Name 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 By CLEAN? with link
Breathing Earth	2012 Oct 23; Wheeler; www.BreathingEarth.net, developed by designer David Bleja. Explore the relationship between population growth and carbon emissions worldwide. 2012 Oct 23; Gould; We added this as Investigation 5-2 in GSS Population Growth book. https://sites.google.com/a/globalsystemsscience.org/ global-systems-science/studentbooks/pg/ch5	
Climate Change Minute Podcasts	2012 May 1; Bydlowski: <u>http://climatechangeminute.podbean.com</u>	
NASA Resources	 <u>http://climate.nasa.gov/</u> - NASA Climate Change website <u>http://climate.nasa.gov/ClimateReel/</u> - NASA videos about climate change <u>NASA/PBS_Global Climate Change Module</u>. Available as of Fall 2011: <u>Introduction to Earth's Dynamically Changing Climate</u> (How is the Earth's climate changing? Evidence of climate change from different parts of the Earth's system) <u>http://modis.gsfc.nasa.gov/</u> - MODIS (Moderate Resolution Imaging Spectroradiometer), a key instrument aboard the <u>Terra (EOS AM)</u> and <u>Aqua (EOS PM</u>) satellites. 	Yes - Various resources
NOVA videos	2011 Mar 14; Goodman: <u>Car of the Future</u> An excellent video on fuel sources for cars post gasoline. Hosted by the Car Talk guys, so very user-friendly. 2011 May; Gould: <u>Secrets Beneath the Ice</u> about the ANDRILL expedition, University of Nebraska-Lincoln's international geological drilling program investigating Antarctica's role in climate change. Segments include: Antarctica Today; Ice On The Move; Tiny Clues; Reading Rock Cores; Climate History.	Yes – "Car of the Future" segment
<u>Learn More About</u> <u>Climate</u>	2011 July, Chasteen: A series of videos on how climate change is affecting Colorado citizens and businesses. Includes Pine Bark Beetle, Energy and Colorado's Future, A Hotter Drier Colorado, Climate Change and Colorado's Ecology, and Education and Solutions.	Yes - "Pine Bark Beetles" activity
Climate Insights videos	2012 Mar 4, Jackson: At the AAAS meeting in Vancouver I got to see a set of video clips about Climate change that are quite well done I think: [from Pacific Institute for Climate Solutions] <u>http://www.youtube.com/</u> <u>PICSClimateInsights</u>	No
TED Talks	2012 May 1; Bydlowski: James Hansen: Why I must speak out about climate change <u>www.ted.com/talks/</u> james_hansen_why_i_must_speak_out_about_climate_change.html	

Table 2: Multimedia Untested by Lifelines Teachers

Resource Name 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 by CLEAN? with link
Cal-Adapt.org	2011 Nov 7; Gould. This is California specific, but the "Mapping climate change in California" tools seem pretty cool, and perhaps could become available to other regions. Video shows how interactive Web-based tool developed at Berkeley works:	No

	http://news.cnet.com/8301-11386_3-20126790-76/mapping- climate-change-in-california-video/ The actual tools are at http://cal-adapt.org/	
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 Communication	2015 Sep; Gould: Animations - <u>https://</u> www.climatecommunication.org/news/new-animations/	
Climate Denial Crock of the Week	2010 Oct 5; Gould 2011 Aug 10. This is Not Cool. Heatwave 2011.	No
<u>ClimateHotMap</u>	2011 Dec 30; Gould. Global Warming Effects Around the World. Interactive world map at the Union of Concerned Scientists site.	No
David Suzuki – The <u>Bottom Line,</u> CBC Radio	2011 Mar 2; Gould: podcasts explore the disconnect between society's modern values and our relationships with the earth as well as a celebration of life, with scientists, politicians and the occasional celebrity on board. http://www.cbc.ca/podcasting/index.html? newsandcurrent#bottomline See also one-minute video of Suzuki at http://interactive.nfb.ca/#/ testtube	No
DOE videos	2013 Jul 24; US Dept of Energy videos - Energy 101:http://www.youtube.com/playlist?list=PLACD8E92715335CB21Lumens22Electric Vehicles33Energy Efficient Data Centers4Daylighting5556Wind Turbines7669Concentrating Solar Power10811Lighting Choices12Algae-to-Fuels13Hydropower14Marine and Hydrokinetic Energy	Yes
Eugenie Scott, Executive Director of the National Center for Science Education (<u>NCSE</u>)	2012-04-09; Gould. Debate Over How to Teach Evolution and Climate Change on the Diane Rehm show - Podcast - Senator David Fowler (Senator from Tennessee) explains bill that affects teaching of evolution and climate change. See also radio show Is 'Academic Freedom' a Disguise for Religion?' The Tennessee legislature has passed a law allowing teachers to raise "scientific weaknesses" about Evolution, along with Global Warming. Science educators say there are no such "weaknesses," and warn that Tennessee could become a laughing stock for teaching pseudo science. <u>http://www.kcrw.com/news/programs/</u> tp/tp120410academic_freedom_ver	
The Earth: The Operator's Manual	Description: Video about climate change and sustainable energy. Host Richard Alley – a geologist, contributor to the United Nations panel on climate change and former oil company employee leads the audience on this engaging one-hour special, premiering during Earth Month 2011. Individual video segments at <u>http://earththeoperatorsmanual.com/</u> <u>main-video/earth-the-operators-manual</u>	Yes - Various segments
Florida	 2012 June; Gould - Sea Level Rise Summit Introduction - Video 1 <u>http://www.ces.fau.edu/SLR2012/media/video-1</u> Filmmaker Interview: Briar March makes the correlation between sea level rise issues in South Florida and the atoll Takuu, which is featured in her film, There Once Was an Island. <u>http://www.ces.fau.edu/SLR2012/media/briar-march</u> 	
Glacial Balance- video	2014 Jan; Gould – A country-by-country journey along the spine of the Andes, providing a narrative of climate change impacts on communities, farmers of crops like coffee, quinoa, beans & potatoes, and exporters of off-season fruit and wine. Interviews with scientists studying glaciers while they still exist. 2-DVD set, \$25 home use, \$300 educational use – http://www.glacialbalance.com.	

Environmental Literacy and Inquiry - Climate Change	system? Keeling Curve. What does carbon dioxide have to do with global warming? Why is it important to reconstruct the long history of the earth's	Carbon Dioxide Have to do with Global Warming Video" only
Movies for Environmental Education	 Plastic Paradise - EVERY single piece of plastic that has ever been created since the 19th century is still SOMEWHERE on our planet. So if it never goes away, where does it go? Last Call to the Oasis - a Documentary About Water Supplies - when there really is not a drop to drink. Dirt: The Movie - narrated by Jamie Lee Curtis-brings to life the environmental, economic, social and political impact that the soil has. It shares the stories of expects from all over the world who study and are able to harness the beauty and power of a respectful and mutually beneficial relationship with soil. The Cove - 2009 documentary analyzing/questioning dolphin hunting practices in Japan a call to action to halt mass dolphin kills, change Japanese fishing practices, and to inform and educate the public about hazards of mercury poisoning from dolphin meathas drawn controversy over neutrality, secret filming, and its portrayal of the Japanese people. Blackfish - Blackfish - documentary and psychological thriller with a killer whale, Tillikum, at its centreabout an orca involved in the deaths of three individuals, and the consequences of keeping orcas in captivity. End of the line - a documentary about how fish stocks in the ocean are at dangerously low levels, with many species very close to extinction. It tells what has happened, how come we din't know about this before and what we need to do about it, quickly. The solution includes being conscious about your choice of his, how to eat sustainable fish stocks. Crude awakening: The OI Crash - explores key historical events, data and predictions regarding the global peak in petroleum production. It examines our dependence on oil, showing how oil is essential for almost every aspect of our modern lifestyle, from driving to work to clothing and clean tap water. It asks the tough question, "What happens when we run out of cheap oil?" Eucl - in-depth personal journey o	

Up	nominated movie about how climate change is impacting indigenous cultures and island communities, in particular, a small island community in the South Pacific Ocean – the Carteret Islands. Although their own carbon footprint is virtually nonexistent, the Carteret Islanders bear the heartbreaking distinction of being some of the first environmental refugees. Sun Come Up, 385 Ninth Street #1, Brooklyn, NY 11215; 646-416-1755	
Movie: Chasing Ice	2012 Feb; Gould – the story about the work of James Balog, Extreme Ice Survey, and his quest to document the retreat of arctic glaciers through his year-round cameras taking time lapse photography.	No
Movie: <u>The Island</u> <u>President</u>	2012 Feb; Gould –film about Dr. Mohamed Waheed, president of the Maldives and his efforts to encourage climate change policies internationally for the survival of his homeland.	No
Movie: <u>Things</u> <u>Happen</u>	2012 Apr 14; Gould –from 350.org. <u>http://www.climatedots.org/</u> thingshappen/	
National Research Council (NRC) / National Academy of Sciences	 2012 Jul 8; Gould - Climate Change: Lines of Evidence videos - http://nas-sites.org/ americasclimatechoices/summaries-and-videos-from-the- acc-series/climate-change-lines-of-evidence-videos/ Video Series Summarizing the State of Climate Science Research - http://earthobservatory.nasa.gov/blogs/earthmatters/ 2012/06/29/national-research-council-video-series- summarizes-the-state-of-climate-science-research/?src=eoa- blogs 	
Pacific Islands Climate Education Partnership (PCEP)	2015 Sep; Gould: Interactives • <u>Carbon Dioxide and the Carbon Cycle</u> • <u>Earth's Energy Flows and Climate</u> • <u>Impacts of Climate Change in the Pacific Region</u>	
SatCam	2012 Aug 14; Gould – An app for iPhone and iPad, SatCam lets you capture observations of sky and ground conditions at the same time that an Earth observation satellite is overhead. It helps Space Science and Engineering Center, University of Wisconsin-Madison to check the quality of the cloud products that they create from the satellite data. In return, they send you the satellite image that was captured at your location, anywhere in the world! SatCam supports the Terra, Aqua, and Suomi NPP satellites. http://satcam.ssec.wisc.edu	
Science Education Resource Center (SERC)—Climate and Energy Webinar Series	2011 May; Gould: It's a Gas, Gas, Gas: Developing a Semester-long Class Project on Natural Gas Exploration using the Jigsaw Method - Devin Castendyk, State University of New York, College at Oneonta	No
Song of Our Warming Planet	2013 July; Gould – University of Minnesota undergrad Daniel Crawford uses a cello to model thermometer measurements of the average global temperature each year since 1880a rise of about 1.4 °F (0.8 °C) It is juxtaposed with a line plot of year-by-year changes in annual temperatures. <u>http://vimeo.com/69122809</u>	
<u>Teachers' Domain,</u> Climate Literacy collection	2010 Nov; Gould: media resources (videos and Flash interactives, with background essays and teaching tips) from Wisconsin Educational Communications Board, ThinkTV Dayton, and WGBH Boston, funded as a part of a CPB STEM media initiative.	Yes – Various activities
TED-Ed Lessons Worth Sharing	2012 May 5; Gould: http://ed.ted.com – educational videos including collaborations between educators and animators. The platform allows users to take any useful educational video and create a customized lesson around the video, distribute the lessons publicly or privately, and track their impact on the world, a class, or an individual student.	
Water Cycle - CIMSS <u>Great Lakes Centric</u> <u>Water Cycle</u> <u>diagram</u>	2011 Apr 29; Gould	No
Weather Underground	2012 May 29; Gould: Climate videos from Weather Underground - http://www.wunderground.com/climate/videos.asp	
Windows to the Universe: <u>Our</u> Changing Planet	2011 Jul 15; Gould: Video clips and related classroom activities	<u>Yes</u> – Various Activities

<u>Global Warming</u>		
Young Voices on Climate Change	videos (3–6 minutes each) present positive success stories of youth, 11–17, finding local solutions to the global warming crisis and reducing the CO2 emissions of their homes, schools and communities. The videos document win-win scenarios such as 11-year old Felix Finkbeiner, a German boy who plants a million trees; four Florida middle school girls who do an energy audit and save their school \$53,000; and Alec Loorz and his "imatter" and "Declaration of Independence from Fossil Fuel" campaigns. Produced and directed by author/illustrator Lynne Cherry. http://YoungVoicesonClimateChange.com	Yes - Various media

General Teaching Tools: Extranormal (animation tool) - <u>http://www.xtranormal.com/edu/</u>