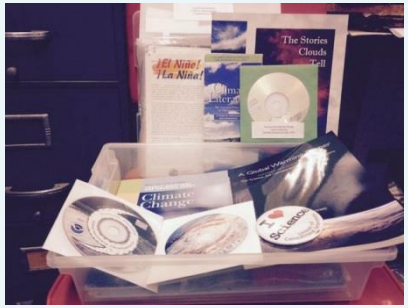
Secondary School Climate Kit: Students Making a Difference in Climate Change

Steve LaDochy[1], Pedro Ramirez[1], William Patzert[2] and Joshua Willis[2]
[1]California State University, Los Angeles; [2]Jet Propulsion Laboratory, NASA



Climate kit containing books, posters, CDs, thermometers, lesson plans.

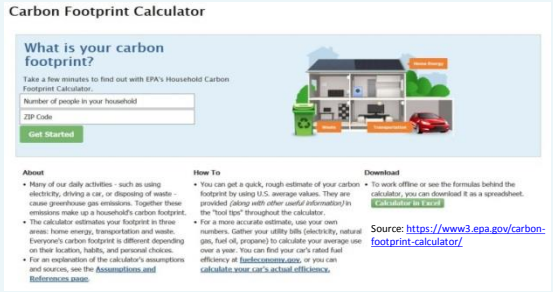
Carbon Footprint Calculators

Use one of these tools to estimate your personal or household greenhouse gas emissions and explore the impact of different techniques to lower those emissions:

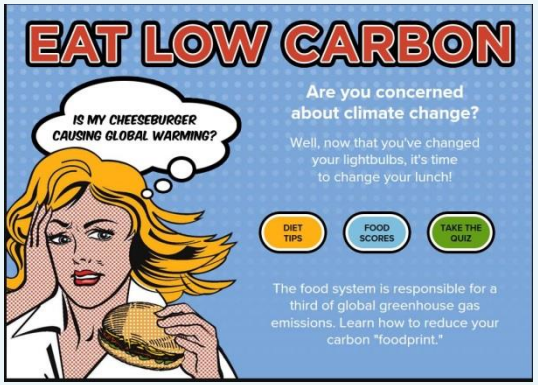
Global Footprint Network:
www.footprintnetwork.org/en/index.php/gfn/page/calculators/

The Nature Conservancy:
www.nature.org/greenliving/carboncalculator/

U.S. Environmental Protection Agency: www3.epa.gov/carbon-footprint-calculator/



Source: https://www3.epa.gov/carbon-footprint-calculator/

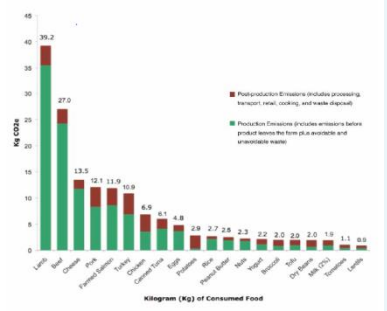


Source: http://www.eatlowcarbon.org/

10 Things I Can Do to Reduce My Carbon Footprint- List from 2 classes

Lower transport carbon (49)	Showers, Conserve Water (19)
Washing and Drying (29)	Reduce appliances, devices energy (19)
Recycle, reduce, reuse (28)	Reduce home heating, cooling (17)
Green light bulbs, turn 'em off (28)	Making home energy efficient (6)
Greener diet/less meat, diary (27)	Others: educating, voting, support (7)

Source: i2sea.stanford.edu/iscfc



Source: http://static.ewg.org/reports/2011/meateaters/pdf/methodology_ewg_meat_eaters_guide_to_health_and_climate_2011.pdf

Climate Stewardship Project Plan - "It's Fun to Save the World!"

1. What is the Climate Change Issue?

This project shows how individual students can make a difference in reducing greenhouse gases. The objective is to have students explore (1) climate change, (2) the role of greenhouse gases in global warming, (3) the role of individuals, communities, cities and nations in greenhouse gases (GHG) contributions, and (4) how individuals can make a difference in reducing GHGs. We will show that even small changes in behavior of one household can make a difference.

2. What is the desired outcome of your project?

Calculate their carbon footprint. From these calculations, students will then look at how to:

a. record individual changes to carbon footprint focusing on: transportation, food, electrical, heating/ air conditioning. Students in the selected classrooms will:

b. alter their lifestyle to reduce GHGs in such areas as transportation, energy usage, the 3 Rs and in their diet. From researching their own individual contributions, students will then tackle how GHGs can be reduced in their home and school.

3. Describe the information you will collect to measure progress toward your desired outcome.

-Students will be surveyed initially to find out their attitudes on climate change and greenhouse gases.

-Students will calculate their carbon footprint contributions and find ways to reduce totals.

-Students will be requested to collect data from home and look at the possible reduction of GHGs.

The project will continue with biweekly topics that will include but not be limited to:

Transportation emissions; Home/school carbon foot prints; Home/school electricity usage; Home/School mitigation strategies

*4. **Use of NOAA and Other Climate Resources***

10 Evidences of Global Warming (poster) NOAA;
Earth Day Network Carbon Footprint Calculator
http://www.earthday.org/splash_page.php
EPA What You Can Do (Climate Change)
http://www3.epa.gov/climatechange/wycd/
NOAA Climate Science https://www.climate.gov/climate-and-energy-topics/personal-responsibility
Building energy use map of LA
http://www.citylab.com/housing/2015/10/las-new-energy-atlas-maps-who-sucks-the-most-off-the-grid/409135/
Video: Global Warming, Did You Know?
https://www.youtube.com/watch?v=gTS2Yp-UgI0
Video: climatekids.nasa.gov/review/how-to-help/
How Students Can Reduce Their Carbon Footprint:
http://www2.cortland.edu/about/sustainability/ccc/how-students-can-reduce-their-carbon-footprints.dot?host_id=1
Communities Take Charge: http://www.communitiestakecharge.org