

## Unit 3 Lesson Plan developed for Grade(s) 7

Title: Human Influences on Climate

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Applies to Lesson(s) 7-9 from <http://cimss.ssec.wisc.edu/climatechange/>

Objective:

Students will learn about the sources of pollution and calculate their ecological footprint.

Total Time Expected: two 55-minute class periods

Overview:

Small groups (3-4 students) will be given a pollution source to research. Students will share research. Students will calculate their ecological footprint.

Sequence:

1. Students will use the DNR poster "Where's the Air?" to make a list of natural and man-made sources of pollution. (i.e. volcanoes, geysers, plants, wetlands/swamps, animals, buses, cars, gas stations, trash burning, sewage treatment plants, cement plants)
2. Students will focus on the human sources of pollution to research what is being done to control the pollutant. Who is doing the controlling? What role does the government play? Industry? Individuals? How is this pollutant affecting global climate change?
3. Groups will share findings with the class.
4. Students will either use a computer simulation to determine their ecological footprint or use the survey form in the WI DNR booklet *Climate Change A Wisconsin Activity Guide* – Grades 7-12, p. 38-39
5. Class discussion on ways to reduce ecological footprint.

Supplies or references required:

Computers for research

Laminated WI DNR "Where's the Air?" posters (1 per group)

Whiteboards and markers for sharing findings

National Science Standards addressed:

AAAS Project 2061

4B The Earth, p. 69

4C Processes That Shape the Earth, p. 73, 74

5E Flow of Matter and Energy, p. 120, 121

Related URLs or recommended reading:

*Climate Change A Wisconsin Activity Guide* – Grades 7-12, WI DNR, p. 13 for example of graph. [www.dnr.wi.gov/eeek/teacher/climatechangeeguide.htm](http://www.dnr.wi.gov/eeek/teacher/climatechangeeguide.htm)

*Mission Planet Earth Our World and Its Climate – and How Humans Are Changing Them*, Sally Ride and Tam O'Shaughnessy

<http://islandwood.org/kids/impact/footprint/footprint.php>

[http://www.zerofootprintkids.com/kids\\_home.aspx](http://www.zerofootprintkids.com/kids_home.aspx)

<http://climatechange.110mb.com/what-can-industry-do-climate.htm>

<http://climatechange.110mb.com/what-can-i-do-global-climate.htm>