

Senior Activities

#1 MY ECOLOGICAL FOOTPRINT AND MY SCHOOLYARD

Purpose: To compare your individual ecological footprint to the area of your schoolyard.

Background:

Bill Reese, who developed the concept of an ecological footprint and its measurement, is a professor at University of British Columbia. The concept came to him as a young boy, when he sat at table about to eat a meal made solely of products from his uncle's farm. As a city boy from Montreal this fact - that he had helped in some way - to grow all of the food in front of him was a vision that never left him. This vision became the inspiration for the development of a calibrated ecological footprint - a concept now adopted worldwide.

Method:

1. What is the formal definition of an ecological footprint?
2. Use at least two of the online calculators below to calculate the area of your own ecological footprint in square metres. You may find other calculators. If so, compare your results.

Suggested websites:

- <www.educ.uvic.ca/faculty/mroth/438/ENVIRONMENT/webstuff/footprint.html> An ecological footprint calculator is based on data from your three-day record.
- <<http://www.mec.ca/AST/ContentPrimary/Sustainability/GreeningOperations/EcologicalFootprint.jsp>> Mountain Equipment Co-op; 27 simple questions to complete for calculation of your individual footprint.
- <<http://files.earthday.net/footprint/index.html>> Use an interactive map to compare results world wide
- <www.kidsfootprint.org> has a very rewarding version for kids!
- <<http://www.sierraclub.ca>> An ecological footprint around the world and lesson plan.
- <www.zerofootprintkids.com> easy to use and looks great.

3. Determine the area, in square metres, of your schoolyard. Use a trundle wheel, tape measure, digitized map or equivalent to allow you to measure the length and width of the property.

Note for later: Often farmland is measured in acres or hectares. There are 2.45 acres per hectare. One hectare is 100m x100m.

Conclusions:

4. a) Which is larger – your ecological footprint or the schoolyard?
- b) How many times does the area (m. sq.) of your personal ecological footprint divide into the area (m. sq.) of the schoolyard that you measured?
- c) Divide the smallest number into the largest number. Make sure both they have the same units of measurement to cancel out for an answer as a ratio. What is the ratio for the ecological footprints for you and your schoolyard? How many extra planets are needed to support a world of people who have your lifestyle?

Further discovery:

5. Assume that each of classmates and your family and the population of your city, town or county have the same sized ecological footprint as you do.

- a) What is the total area of your family's ecological footprint? Show your calculations.
- b) What are the total areas of your class and school's ecological footprints? Show your calculations.
- c) What is the total area of the ecological footprint of the population of town or city residents where you live? Show your calculations.

6. List 5 ways you could contribute to a decrease in ecological footprint area total in 5 (c).

How much would each of these changes reduce the total area?

Search the youtube video clip of “The 11th hour”, which highlights the scientists speaking about the urgency of climate change already underway and in our future.

<www.acer-acre.org> “Climate Change in Context” has a glossary in a searchable online CD.