



## Theme: Sustainability (Grades 6 to 8)

### Pre-Visit Activity 1 Ecological Foot Print

#### Overview:

Ecological Footprints measure humanity's demands on nature. Everything humans do has consequences. Humans influence the environment in many ways. Everyone uses a certain amount of nature depending on his or her lifestyle. If a person does not live sustainability, the earth is impacted negatively.

#### Activity:

1. Go to the [www.myfootprint.org](http://www.myfootprint.org) website. Stay on the home page. Ask the students to define the term ecological footprint. Discuss, using the terms and pictures on the home page of the website, the following terms and how humans affect the environment:

Deforestation, pollution, desertification, urban sprawl, global warming, soil erosion, extinction, wildfires, and pollution.

2. Once terms have been discussed, ask students if they have ever wondered how much their personal lifestyle requires of the earth.

3. In order to better understand the impact that humans make, the teacher should project or have the students click on the terms Enter Here, which are right below the words "How Big is Your Ecological Footprint?" This will bring you to the page entitled "Refining Progress, The Nature of Economics" section. This section takes students through what this quiz measures, how it calculates the ecological footprint and what the results mean.

a. Average Per Capita Footprint In Global Hectares By Consumption Category

The first section explains that the quiz will ask questions in one of four categories to get a well-rounded idea about the ecological footprint that each person makes. Those categories are shown in graph form on this page and include: carbon footprint, food footprint, housing footprint, goods and services footprint.

b. Average Per Capita Footprint in Global Hectares by Biome Category

The biomes represented are Forestland, Marine Fisheries, Pastureland, and Cropland. The current number shows that humans are using 23.47 global hectares of land. There are only 15.71 global hectares available per person on a renewable basis. This means that humans are already using too much of the environment. At the current rate of consumption, humans need 1.5 earths!

4. Next, students are going to take the Ecological Footprint Quiz. It estimates the amount of land and ocean area required to sustain consumption patterns and absorb wastes on an annual basis. After answering 27 easy questions, students will be able to compare their ecological footprint to others' and learn how to reduce their impact on the Earth. By pressing next on the Redefining Progress Page, it will lead to the first page of the quiz.

5. Have the students take the quiz individually and have them take notes on the choices they make and note how many earths they need to sustain their current lifestyle.

6. After completing the quiz, have students break into groups of 5-6 to compare and contrast their results for five minutes. Do the students have the same results? Why or why not? What did they choose that brought their numbers up or down?

7. Groups then share results with the class. The teacher may ask questions to prompt discussion, such as: Is it sustainable for humans to live in a desert environment? What affected the results most drastically? Does recycling impact the environment? Why is being a vegetarian better for the croplands? Does driving individually in a car vs. commuting or using public transportation change the results?