**Ecological Footprint**

**Objective:** This activity is designed to show students how ecological footprints vary by country and standard of living. Students will discover their own ecological footprints and compare them to those of other students in various regions of the world by answering the questions on the Personal Footprint Quiz developed by the Global Footprint Network.

**Introduction:** An ecological footprint is a measure of the amount of natural resources that are required to sustain the material standard of living of a given human population or individual. Everybody has an impact on the Earth because they consume products and services derived from nature. The ecological footprint measure how much land and water area is required to produce the resources we consume and to absorb our wastes.

Every action impacts the planet’s ecosystems. This is of little concern as long as human use of resources does not exceed what the Earth can renew. Today, humanity uses the equivalent of 1.5 planets to provide the resources we use and absorb our waste. In other words, it now takes one year and six months for the Earth to regenerate what we use in a single year. Our world footprint has doubled since 1966. Even using modest U.N. projections on population growth, consumption, and climate change, we will need two Earth’s to satisfy our global needs by 2030.

**Procedure:**

1. Go to **goo.gl/0Ytc** (that’s a zero in the URL)
2. Complete the online quiz.
   1. Select USA and click begin
   2. Log in as a NEW USER 🡪 click get started
   3. Design a person
   4. Whenever possible, answer the more detailed questions and not the basic information

**Discussion Questions:**

1. How many Earth’s does it take to support you? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. How does your ecological footprint breakdown? (by percent)

|  |  |
| --- | --- |
| Food |  |
| Shelter |  |
| Mobility |  |
| Goods |  |
| Services |  |

1. To support your lifestyle it takes \_\_\_\_\_\_\_\_\_\_\_ global acres of Earth’s productive areas. (\_\_\_\_\_\_\_\_\_\_tons of CO2)
2. Convert your global acres to hectares. (1 global hectare = 2.47 global acres)

You need \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ hectares to support your lifecycle.

1. The U.S. average is 8 hectares per person. The world average is 2.7 global hectares per person.

How do your numbers compare to the U.S.? Globally?

**Under, “Can you reduce your Ecological Footprint?” click on explore scenarios.**

1. What are the 3 ways you could reduce your footprint?
2. What are the environmental, economic, and social impacts of a typical American diet and lifestyle?
3. What would happen if the rest of the world adopted our actions and lifestyles?
4. In what ways would your grandparent’s (or other members of earlier generations) lifestyles have been different from your lifestyle?
5. Why do processed foods impact the Earth more than locally produced, non-processed foods?
6. No one wants to give up all the things that make our lives comfortable, but what are some important changes YOU could realistically make that would reduce the size of our global footprints?

**Extension:** Complete the quiz again based on the lifestyles of students in other parts of the world using the biographical profiles provided. Assume that if an item on the quiz, such as time spent on a plane or train, is not mentioned in the profile, then the character does not participate in that activity. Assume that none of the students profiled are driving on their own yet. If there is not information in a profile to answer a certain question, you may be able to answer, “I don’t know.”

Location and Name of Student:

Total Footprint in hectares:

Total Footprint in acres (multiply number of hectares by 2.47):