

Chapter 16: Ecological Footprint Activity

Section 1: Human Population Growth and Natural Resources

I CAN STATEMENT: I can investigate and analyze how organisms, populations, and communities, respond to external factors.

1. Go to this website: <http://www.footprintnetwork.org/resources/footprint-calculator/>
2. Under [Footprint Basics](#), read Introduction and Overview. Then define ecological footprint in your own words. What does it actually measure?

3. Under Footprint Basics, go to Personal Footprint and take the [ecological footprint quiz](#) for yourself. Enter as a new user, create your avatar and always enter the more detailed information. If you are asked a question that refers to units of measure, you can choose your answer by looking at the words on the sliding scale (far or not far, a lot or a little, for example).

4. Record your ecological footprint.

a. How many planet Earth's would be required if everyone lived like you? _____

b. Break down your ecological footprint:

____% Food ____% Shelter ____% Mobility ____% Goods ____% Services

c. How many global acres of the Earth's productive area do you require? _____

d. Put the following in order from **most** land used to least land used: energy land, crop land, grazing land, forest land, built up land, fishing grounds

e. How many tons of carbon dioxide do you generate? _____ The Earth can absorb some of our carbon dioxide, but not at the rate we are producing it now. So, the fewer tons you personally produce, the better. We will study this more later.

5. Click on "edit your footprint."

a. How **low** can you get your footprint to be? Record it here: _____

b. List five things that you can do to make your footprint lower.

6. Click on “explore scenarios.” Click on the checkboxes one at a time.

a. How do the listed activities affect your ecological footprint in terms of the number of planet Earth’s needed?

b. If every American did only one of these activities, which would be the most effective in reducing our ecological footprint?

c. Could you commit to doing one or more of these activities? If so, which one(s)? If not, why?

Data Collection: *(Completed as a class)*

Student Name	Personal Footprint

Student Name	Personal Footprint

Student Name	Personal Footprint

What is the average footprint of the class? _____

How does this compare to the average American’s footprint (23.7 global acres/person)?

Biocapacity is the capacity of an area to provide resources and ABSORB wastes. The total biocapacity of the Earth is estimated to be 4.4 global acres/person. Is our class running an ecological deficit or an ecological surplus?
