

Our Ecological Footprint

Real World Ecosystems
Activity
Grade Level: 5-8



Main Objectives

This activity will help learners become aware of the interconnectedness of personal lifestyle and its impact on the environment. The ecological footprint will calculate the number of hectares that are needed to sustain learners' lifestyles. Learners will compare countries and evaluate ways in which footprints might be reduced.

Learning Outcomes

By the end of this activity, learners will:

- Calculate their personal ecological footprint
- Become aware of how a footprint might vary from city to city, province and country
- Make decisions and take action to reduce various footprints

Length of Activity

1.5 hours

Materials List

Internet-enabled device
Our Ecological Footprint Backgrounder
Our Ecological Footprint Learner Worksheet
Our Ecological Footprint Learner Worksheet Answer Key
Our Ecological Footprint PowerPoint
Optional: Offline Ecological Footprint Calculator

Procedure

Step 1: Backgrounder/PowerPoint

- Provide the learners with copies of the Our

Ecological Footprint Backgrounder. Allow the class to read the backgrounder individually or in groups.

- As learners are finishing up their reading, be sure to remind them to discuss amongst themselves the "Think About" questions at the end of the backgrounder.
- Alongside the backgrounder, present to learners the Our Ecological Footprint PowerPoint presentation.

Step 2: Calculating Your Ecological Footprint

- First discuss what the ecological footprint is, provide some examples, referring to the online resources found here: <https://data.footprintnetwork.org/#/>.
- Have learners predict and record what they think their personal footprint is before they do the actual calculation.
- Have learners use this online calculator tool to begin their personal calculation found here: <https://www.footprintcalculator.org/home/en>.
- An alternative, offline based calculation calculator has been provided within this activity in case computer access is not possible.

Step 3: Worksheet

- a. Once learners are finished their calculation, they may work in groups or individually on the learner worksheet.
- b. Allow learners to compare and discuss their results and brainstorm an action plan to reduce their footprints.

Tips and Extensions

- Have learners choose one or two activities that would help reduce their footprint. (e.g. recycle paper, pop cans, lights off, etc.). Have them carry out the activity for a couple of weeks and then recalculate their footprint. Ask them to compare and see if they reduced their footprint.
- On Earth Day, have other classes or the whole school calculate their collective footprint.
- Make posters about the ecological footprint and post them around the school.
- Information Communication Technology: Have learners research information about the ecological footprint and then create their own PowerPoint.

Comprehension

You may wish to test learners' comprehension with the following prompts and questions:

- What are some of the reasons why Canada's ecological footprint is greater than that of other countries?
- Does population size affect the size of the ecological footprint of the country? Explain.
- State some reasons why countries, provinces and cities have different footprint sizes?
- What are some things that the ecological footprint looks at in calculating the number of hectares needed to support lifestyle?
- How can walking, biking, carpooling, and turning off electrical appliances help reduce your ecological footprint?