

How Big is Your Ecological Footprint?

ACTIVITY SEVEN

Learner Expectation #8: Identify alternative materials and processes that may decrease the amount of waste produced.

Purpose

To introduce the concept of our “ecological footprint” so that children become aware that everything they do has an impact on the environment. Calculating their ecological footprint will help students understand how their daily activities affect the environment. They will learn that by making different choices they can reduce the amount of resources they use and the amount of waste they produce.

Background

Your ecological footprint is the total area of productive land required to support your lifestyle, i.e. to produce all the resources you consume. It includes not only things like the amount of land needed to grow your food and store your garbage, but also other impacts, such as carbon dioxide emissions, purchasing power, number of vehicles, paper consumption, fossil energy use, fresh water withdrawal, etc.,. Everything we do, from eating a meal to taking a bath, leaves an impression on the earth and our ecological footprint is a good measure of how much of the earth’s natural resources each person uses. In general, the more affluent the country, the more productive land per person is required to sustain the population. There are only 8.9 billion hectares of land on which we can live and grow food and the latest available figures indicate that the ecological footprint of the average Canadian has increased to 7.8 hectares/capita. That means that each Canadian uses almost 20 football fields worth of land a year. If we continue to live this way, there will not be enough resources on the earth to sustain future generations.

The quiz provided is a modified, kid-friendly version of the original, which was created by William Reese and Mathis Wackernagel, and it is not meant to accurately reflect the size of each student’s ecological footprint. Its purpose is simply to introduce the notion that our lifestyles have a direct effect on the planet and that we can modify our daily activities to

reduce that impact. Many books and websites offer information about the concept of an ecological footprint, including <http://www.iisd.ca/consume/mwfoot.html> and www.sustainabilityed.org/ef.htm.

Materials

- Copy Sheet #4 for each student
- Scrap paper
- Colouring tools

Procedure

1. Have students take the Ecological Footprint Quiz to calculate the size of their footprint.
2. Once they have completed the quiz, ask students to share their scores and to think about other activities they do each day that can impact the environment. Ask students to write a list of these activities and ways that they can modify their behavior to decrease the size of their ecological footprint.
3. Give students each a piece of scrap paper and have them trace their own footprint and cut it out. They can use other scrap materials and colouring tools to decorate them.
4. Then ask them to think of one thing that they can do to reduce their ecological footprint. Have each child write this activity down on their footprint as their own pledge to walk lighter on the earth. You can display these footprints in the classroom or in the hallway to remind the students of their pledge and to inspire other students to think about how they can reduce their ecological footprints.

Ecological Footprint QUIZ

- How did I get to school today...
 - I walked or rode my bike
 - I took the bus
 - I was driven in a car
- How much water did I use this morning...
 - I did not shower
 - I had a short shower
 - I bathed in a full tub
- I am wearing...
 - Almost all second-hand or hand-me-down clothing
 - Some second-hand or hand-me-down clothing
 - Only brand new clothes
- When I eat a meal there is this much food left on my plate...
 - I clean my plate
 - A little bit of food
 - Half of the food that was there to begin with
- In my lunch, this much food is wrapped in disposable paper or plastic...
 - None of it
 - Some of it
 - All of it
- When I leave a room I turn off the lights...
 - Always
 - Sometimes
 - Never
- At my house we recycle...
 - All of the things that our depot will accept
 - Some of the things that our depot will accept
 - Nothing
- When I go shopping with my family we buy products that contain recycled materials...
 - Always
 - Sometimes
 - Never
- If I put all of the garbage that I threw away today into a container I would need...
 - I produced no garbage today
 - A shoebox
 - A crate
- Each week, my family fills this many garbage bags...
 - 1
 - 2
 - 3 or more



Give yourself **1** point for each “a” answer, **2** points for each “b” answer and **3** points for each “c” answer. Now add up your score to see how big your footprint is!

0 - 10

Congratulations on having such a small footprint! You obviously walk very lightly on the earth to conserve resources and reduce waste.

11 - 20

You have a medium-sized footprint. Although you are doing some things to reduce your impact on the environment, you could make a few changes that will help you to walk a little lighter.

21 - 30

Your footprint could be smaller. Read the quiz again and ask yourself if you can make changes to help decrease the size of your footprint. Even small changes can have a big effect! What are you waiting for?

Name