Using Resources: Mathematics in science contexts, Levels 3+-4-**Ecological Footprints**

You need

★ access to the Internet 🛛 🛧 a classmate

I think my eco-footprint must be pretty small. If everyone lived like me, there would be plenty of resources to go around!

Activity

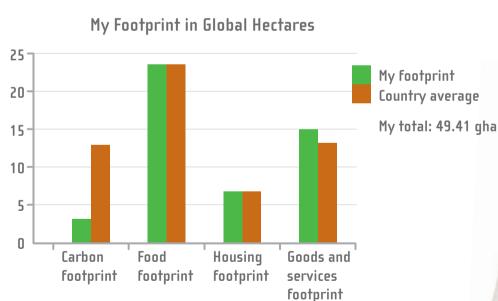
2.)

An ecological footprint is a measure of the amount of Earth's resources required to provide all the stuff we use, such as the food we eat and the house we live in, the fuel to keep us warm and run our car, and the energy to make all the things we buy.

There are websites where we can calculate our own ecological footprint.

1.) Visit a site such as www.earthday.net/footprints2/flash.html or www.myfootprint.org, take the quiz, and find out how many Earths we would need if everyone in the world lived like you. (You may have to select Australia rather than New Zealand, but you will still get a relevant result.)

1 hectare = 1 rugby field; 1 Earth = 13 billion global hectares (gha)



Here is Oromia's ecological footprint:

In 2009, New Zealanders consumed an average of 57.4 a. global hectares per person. How does your ecological footprint compare with this figure?

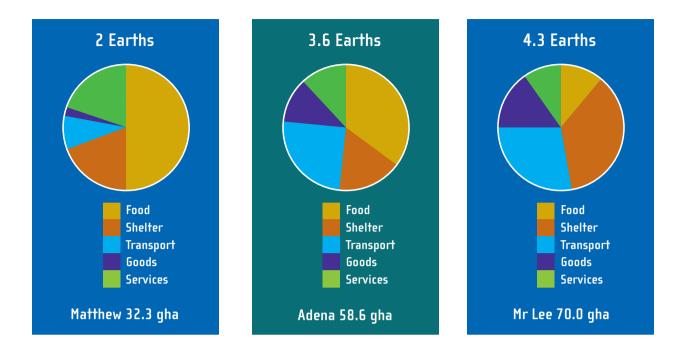
Suggest why a person's eco-footprint might be more or b. less than this average.



Wow! It takes 49 rugby fields to make enough resources just for me!



3. Matthew, Adena, and Mr Lee took a different quiz from Oromia. The graphs show how many Earths would be needed if everyone lived like them:

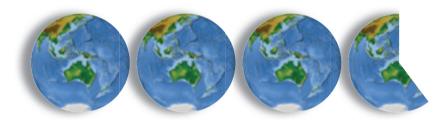


3.6 Earths?

But we've only got 1!

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This is Adena's eco-footprint shown as Earths:



- a. Discuss with a classmate how Adena might shrink her eco-footprint.
- b. Repeat the quiz you did in question 1, but this time, change 1 variable (for example, use only public transport). What difference does this make to your eco-footprint?
- c. Set a target eco-footprint for yourself. How could you change your lifestyle to meet that target?
- d. Take the quiz again, imagining that you have made these changes. How close did you get to your target? What else would you have to do to meet your target?