

Protecting the Earth: how big is your ecological footprint? (for pupils)

How many Earths would we need if everyone on the planet had the same standard of living as you? Work through this questionnaire to find out how much land is needed to support your lifestyle – your 'ecological footprint'.

Your 'ecological footprint' is the area of land needed to support your lifestyle. If we need any more planets than just the one we have, then your lifestyle is not sustainable.

How much water do you use?

Do you have a bath every day? If yes, score 14

If you have a bath once or twice a week, score 2

Do you shower everyday instead of having a bath? If so score 4

If you only take a shower once a week, score 1

What kind of food do you eat?

Do you have meat with every meal? If yes, score 85

Do you eat mostly vegetarian dishes? If yes score 30

How do you shop?

When your family go shopping, do they buy mostly locally produced fresh vegetables, bread and meat eg from local butchers, greengrocers, farmers' market? If so score 2

Or do they tend to buy more packaged, processed food? If so score 15

Or do they buy a combination of imported, local, fresh and processed food? If so score 5

Where do you live?

Divide your score here by the number of people who live in your home.

If you live in a small flat score 7

If you live in a terraced house score 15

If you live in a large flat score 12

If you live in a semi-detached house score 23

If you live in a detached house score 33

Where do you go on holiday and how do you get there?

If you flew as far as Australia last year score 155

Or did you fly to Asia or North or South America? If so score 85

Or did you just fly as far as Europe? If so score 20

If you didn't fly anywhere, but travelled by road or rail within Europe (including Britain) score 10.

Heating your home

In this section start with 45 points since heating a house usually uses energy obtained by burning fossil fuels. This releases carbon dioxide into the atmosphere.

To soak it up, trees will have to be planted, using up precious land. So, subtract points for each energy-saving thing you do.

Does your family set the thermostat low, putting on a jumper before turning it up? If so, subtract 5 (from 45).

Is your home well insulated? If it is, subtract another 15.

If your home is double-glazed subtract 5.

Does your family only turn on the heating when absolutely necessary, rather than leaving it on the timer all year? If so subtract 10.

How much electricity do you use?

For most people, the electricity they use comes from burning fossil fuels which releases carbon dioxide. So start this section with 75 points and subtract points for every electricity-saving thing you do.

Do you always switch off the lights if a room is no longer in use? If you do, subtract 10.

Do you always switch off the TV, computers and other electrical equipment rather than leaving them on stand-by? If you do, subtract 10.

How do you get to school?

Do you normally get a lift to school? If so, is it in a modern car with a small engine? If so score 40.

Or is it in a big 4x4? If so score 75.

Or, is the car something in between these two? If it is, score 50.

If you don't get a lift to school, do you travel by bus or train? If so, score 25.

If you walk or cycle to school, score 3.

How much paper do you use?

If you always buy books, instead of borrowing them, score 2

If you always borrow books, score 0.

If you sometimes borrow and sometimes buy books, score 1.

Do you always share your magazines and newspapers? If yes, add 5.

Or do you throw them in the bin once finished with? If so, add 10.

How much rubbish do you throw away?

You can't help but create some waste, and what you throw away has to be disposed of in landfill sites, using up valuable land. So, start this section with a score of 100 and subtract points for every waste-reducing thing you do.

Have you or your family visited the bottle bank in the last month to throw away your empty glass bottles? If you have, subtract 15.

Do you save your waste paper for recycling? If you do, subtract 17.

Do you keep your used cans to recycle rather than just throwing them in the bin? If you do, subtract 10.

Do you recycle empty plastic containers? If you do, subtract 8.

Does your family keep kitchen and garden waste for composting? If they do, subtract 5.

If you reduce the amount of waste you generate by buying less, mending and reusing old things, buying second hand clothes then subtract 15.

Total score

Add up all of the above to make your total score.

Grand total

Now, many of the amenities that we use everyday such as roads, shops, schools and leisure centres make their own demands on land. So, to take this into account, double your score.

How many hectares are needed to support your lifestyle?

Each point in your score represents one-hundredth of a hectare used. Work out how many hectares your lifestyle has an impact upon by dividing your grand total by 100.

Now find out how many 'Earths' we would need if everyone on the planet were to use the same amount of land (*ie* share the same standard of living) as you:

2 hectares or less

Well done! If everyone lived like this, then human existence would be both sustainable and fair as there is enough land on the Earth to support the whole population at this level of land use. At present, about two-thirds of the global population have an ecological footprint of less than 2 hectares each.

2 – 4 hectares

Your footprint is below the European average! But, it is double the area that would be available if land were distributed evenly amongst the population of the Earth. If everyone on the planet lived like you then we would need at least one extra planet to provide enough land to support us. About 15% of the world's population falls into this category.

4 – 6 hectares

Your footprint is close to the European average. It is about three times the land area that would be available if all the land on Earth were divided up fairly, so for everyone to live like you we'd need another two planets. About 7% of the world's population falls into this category.

6 – 8 hectares

Your footprint is larger than the European average but still smaller than the average North American one. If everyone lived like you we'd need another three whole planets to support us because you are using up four times your share of the Earth if it were divided up equally amongst the whole population.

More than 8 hectares

Your footprint is close to that of the average North American. If everyone on the planet lived like this we would need at least four additional planets to support us because you are using up five times what your share of the Earth would be if it were divided up equally amongst the whole population. About 5% of the world's population have a footprint this big.

What can we do?

What action could you take to make your own ecological footprint smaller? Make a list.

If you can think of any actions that aren't included in the questionnaire, add them to your list as well.

Which of these could you start tomorrow?

Describe how these actions would reduce the impact your life has on the environment.

Which changes are not possible in the immediate future, and why?

Make a list of the actions your school could make to reduce its ecological footprint.

Make a list of the actions the government could make to reduce its ecological footprint.