

How big are your ECOLOGICAL FEET?



We all have a role to play in minimising the degradation of our natural resources.

Your ecological footprint has nothing to do with the size of your shoes. It is actually a measure of a person's demand on Earth's natural resources, including water.

The size of your ecological footprint depends on how much biologically productive land and water you require to live your life. You can reduce this footprint by not wasting electricity and water, cycling or walking to places close by rather than driving, and eating locally-produced rather than imported food.

To calculate your ecological footprint, take the following quiz.

Water use

The amount of water used often depends on whether you have running water in your home, a tap in your yard, or whether you carry water from a river or dam. The way that you use water in your home can sometimes be very wasteful.

When you wash, do you use:

a	A bucket	b	A shower	c	A bath
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Your score: a) 0 points, b) 5 points, c) 20 points

Re-using water

South Africa is a water-scarce country. It is believed that if no immediate action is taken by the year 2025 we will have insufficient water for use in our homes, for agriculture and for industry. By using water carefully, you can help to conserve our water sources.

When you have finished washing at home:

a	Does your water run straight down the drain?	b	Do you use the water on your plants?
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Your score: a) 20 points, b) -10 point

Energy use

Whether you use electricity, coal or paraffin for energy in your home, you are polluting the air – which causes acid rain, global warming and health problems. You can conserve energy by using energy-saving devices (such as energy-saving light bulbs), and solar-powered energy systems.

In your home do you have at least one energy-saving method?

a	Yes	b	No
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Your score: a) -10 points, b) 20 points

Indigenous plants

By growing indigenous plants in your garden, you can contribute to biodiversity because you will attract indigenous insects, birds and other animals. Indigenous plants have many advantages over alien plants, for example, they require less water.

Excluding your home-grown fruit and vegetables, in your garden at home are:

a	Most of the plants indigenous	b	More than half of the plants indigenous	c	Less than half of the plants indigenous	d	None of the plants indigenous
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Your score: a) -10 points, b) 0 points, c) 10 points, d) 20 points

Animal-based products

Producing animal products (beef, chicken, pork, eggs, fish, dairy, etc) puts much more pressure on the environment than producing vegetables. Many people eat more meat than their bodies need. People who eat a lot of meat have more impact on the environment than those who eat less meat or no meat at all.

How often do you eat animal products?

a	Never	b	A few times a week	c	Once a day	d	Small amounts at every meal	e	A large part of every meal
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Your score: a) -10 points, b) 0 points, c) 5 points, d) 10 points, e) 20 points

Poisons in the garden

Poisons – more correctly known as biocides – are often used to kill rats, insects and weeds. Many of the ingredients in these biocides may cause allergies, trigger cancer growth and cause genetic defects. Frequently we don't actually need to kill in the first place! For example, the flat spider on the wall won't hurt you at all (and it helps ridding the home of other pests, such as flies). But if we really do need to kill, we need to decide upon which option of removal is the most environmentally friendly.

In your home, when you have a problem with household pests do you:

a	Use the strongest insecticide or other poison and use until the problem is solved	b	Buy specially-designed environmentally-friendly products	c	First attempt to solve the problem with a less destructive alternative
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Your score: a) 20 points, b) 0 points, c) -10 points



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Did you know that it takes about 2 400 litres of water (to grow the grain to feed the cow and to sustain the cow) to produce a 150 g hamburger patty?

Locally-grown food

Much of the energy cost of food production is spent transporting food from harvest to market, and for processing, packaging and storage. Growing food yourself or buying locally-grown, in-season, unprocessed food can therefore reduce energy consumption. Buying food from local farmers can greatly reduce your ecological footprint.

How much of the food that you eat is locally grown, unprocessed and in-season?

a	Most	b	About three-quarters	c	About half	d	About a quarter	e	Very little
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Your score: a) -10 points, b) 0 points, c) 5 points, d) 10 points, e) 20 points

Travel

Poisonous gases and substances released by cars and other motor vehicles include nitrogen oxides, hydrocarbons and lead which contribute to acid rain, smog, health problems and global warming.

How do you get to work/school/university?

a	On foot	b	Bicycle	c	By taxi/train/bus	d	By car
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Your score: a) -10 points, b) 0 points, c) 5 points, d) 20 points

Re-use

Re-use of some of your waste helps to reduce the impact on the environment; reduces the amount of waste that goes into landfill sites (rubbish dumps) and reduces the amount of raw materials required.

At home do you re-use waste materials such as plastic, paper, glass and tins:

a	Never	b	Sometimes	c	Often
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Your score: a) 20 points, b) 5 points, c) -10 points

Consumer choices

Some goods available in supermarkets pollute the environment more than others – a roll-on deodorant is better than a spray containing CFCs (which break down the ozone layer); a brightly coloured toilet cleaning liquid is not necessary as that colour doesn't clean the toilet.

When you shop do you choose the least polluting product?

a	Always	b	Often – depending on price, brand or what you have seen on television	c	Sometimes – depending on price, brand or what you have seen on television	d	Never think about such things
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Your score: a) -10 points, b) 0 points, c) 5 points, d) 20 points

Recycling

Recycling some of your waste helps to reduce the impact on the environment, reduces the amount of waste that goes into landfill sites (rubbish dumps), and reduces the amount of raw materials required.

At home do you recycle waste materials such as plastic, paper, glass and tins:

a	Never	b	Sometimes	c	Often
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Your score: a) 20 points, b) 5 points, c) -10 points

Reducing

You can reduce your eco-footprint by shopping carefully. Buy in bulk to reduce packaging; buy refills (e.g. deodorants); choose well-made articles that will last well and those with recycled content; and avoid over-packaged products.

When you buy products do you:

a	Always think of the amount you will throw away	b	Often try – but take into consideration price and brand	c	Sometimes – depending on the price and brand	d	Never think of how goods are packaged or how long they will last
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Your score: a) -10 points, b) 0 points, c) 5 points, d) 20 points

WHAT YOUR SCORE SAYS ABOUT YOU

Add up all your points. How big is your ecological footprint?

Score less than 50: Green footprint (you have a tiny ecological footprint)

Score between 51 and 110: Yellow footprint (you have a small ecological footprint)

Score between 111 and 180: Blue footprint (you have a medium ecological footprint)

Score between 181 and 200: Orange footprint (you have a large ecological footprint)

Score over 200: Red footprint (you have a huge ecological footprint)

SOURCE

This activity is taken from the lesson plans developed by the Water Research Commission in partnership with Share-Net (A project of the Wildlife and Environment Society of South Africa). To download the full lesson (free of charge) go to:

www.wrc.org.za/downloads/education/school%20lesson%20plans/Grade10_Activity5.pdf