ONE PLANET LIVING

This guide provides an introduction to the One Planet Living Framework and how to apply it to your One Planet Student Challenge project.





What is One Planet Living?

We only have one Planet Earth, but globally, we humans are living as if we have several planets worth of resources. We know that a lot needs to change for us to live sustainably within the limits of our beautiful planet... but we also know that 'lighter living' can be better living. Living more sustainably will help us make sure that everyone has the chance to live happy, healthy lives, everywhere, and our beautiful planet will continue to thrive.

One Planet Living sets out to make this transition. It provides a vision and guiding principles to help us work together to achieve a sustainable future.

We use the ten One Planet Living Principles as well as an understanding of our local Ecological Footprint and Carbon Footprint (see below) as a lens. They guide our actions, helping move us all in the right direction.

The 10 One Planet Living Principles

| (b) | Health and happiness | Encouraging active, social, meaningful lives to promote good health and wellbeing |
|------------|----------------------------|---|
| **** | Equity and local economy | Creating safe, equitable places to live and work which support local prosperity and international fair trade |
| 223 | Culture and community | Nurturing local identity and heritage, empowering communities and promoting a culture of sustainable living |
| 918 | Land and nature | Protecting and restoring land for the benefit of people and wildlife |
| • | Sustainable water | Using water efficiently, protecting local water resources and reducing flooding and drought |
| ő | Local and sustainable food | Promoting sustainable humane farming and healthy diets high in local, seasonal organic food and vegetable protein |
| Ø₽ | Travel and transport | Reducing the need to travel, encouraging walking, cycling and low carbon transport |
| | Materials and products | Using materials from sustainable sources and promoting products which help people reduce consumption. |
| Q | Zero waste | Reducing consumption, re-using and recycling to achieve zero waste and zero pollution |
| * | Zero carbon energy | Making buildings and manufacturing energy efficient and supplying all energy with renewables |

The Carbon Footprint

Climate change is one of the biggest challenges we face as a global community. We need to understand the carbon footprint of our community and of our own personal lives so that we can take targeted action to reduce our impacts. The carbon footprint is a measure of how much emissions of greenhouse gases (GHG) a person or a community is responsible for. These are the emissions that are contributing to climate change – that are created, for example: when we use fossil fuels to heat our homes and power our vehicles; use energy and resource intensive farming practices; and throw waste in landfills.

The Ecological Footprint

Did you know that the ecological footprint idea was developed right here in BC? In addition to considering GHG emissions, the ecological footprint looks at how much resources we are drawing down from the planet.

Using ecological footprinting, scientists have figured out how much resources we are currently using compared to how much the planet can continue to produce for us. It helps us figure out how close, or how far we are from one planet living.

How it works: we can use the ecological footprint to figure out how much land and water area a person or a community is depending on to produce all the resources they use in their day to day lives, and importantly to absorb the greenhouse gas emissions that we are creating (we need enough plant-life like trees to absorb the greenhouse gas emissions we generate). We know how much productive area there is on Earth, and we can divide that by the number of people on earth to figure out what our fair share is. But remember we need to also set some aside for nature, including other animals.

What about Victoria's ecological footprint? And how do I figure out my own Footprint?

Let's focus on the ecological footprint, as it includes the impacts of greenhouse gas emissions, as well as the impacts of resource consumption overall.

If everyone consumed like the average Canadian, we would need five planets to support us! We are doing a bit better in Greater Victoria, but we would still need four planet earths to support a global population living like we do. You can figure out your own ecological (and carbon) footprint using an app you can access here: www.lighterfootprint.org.

Now, let's take a closer look at the average ecological footprint for a person living in Greater Victoria.

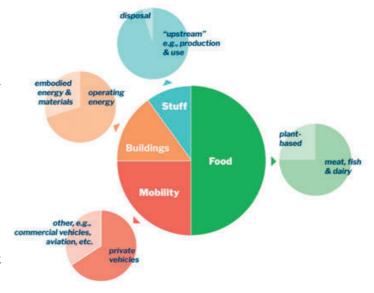
Food (what we eat): 50%

Food is typically the largest portion of our ecological footprint. Two big factors are food waste and the amount of animal proteins (meat and dairy) that a person eats. Tackling food waste is a huge opportunity to shrink our footprint. Right now, nearly half of all food produced in Canada is wasted. And did you know that as much as 63% of the food Canadians throw away could have been eaten? Diets high in animal proteins (meat and dairy) have a greater impact overall than more plant-based diets. You can make an even bigger impact by shifting diets away from lamb, beef and cheese, in particular.

This is because sheep and cows give off lots of methane (a strong greenhouse gas) and cheese production is quite energy intensive (it takes a lot of milk to produce cheese). Choosing chicken, pork, and plant-based alternatives are often better choices. In general, a diet higher in plant-based, non-processed foods, with less food waste helps reduce our footprint dramatically.

Mobility (how we get around): 25%

Our main impacts from transportation are typically due to the fuel used in personal cars and trucks, also significant are flying and ferry travel. Shifting to electric vehicles, and better yet, to public transit and active transportation (walking and rolling), can make a huge improvement on our footprint.



Our ecological footprint - Southwest BC

Buildings (where we live, learn and work): 15%

Many of our buildings – homes, schools, offices and shops are using fossil fuel heating sources. Also, it takes a lot of energy and creates a lot of emissions to construct buildings and renovate them. To make a difference, we can continue to focus on energy efficiency and switching away from fossil fuels, but we can also use our buildings more efficiently, make them last longer and use lower-impact building materials.

Stuff (all the non-food stuff we use daily): 10%

For 'stuff', the biggest impacts are to do with the energy and resources that were used in making it. In the past, we've focused mostly on how we handle waste – like encouraging recycling rather than throwing things away. But it's even more important to reduce overall consumption of stuff – for example, rethinking if a purchase is truly needed; choosing longer-lasting items and reclaimed materials; and sharing and reusing.

Summary

Our ecological footprint tells us we need to focus on:



Reducing food waste and increasing the shift to plant-based diets.

Examples: plan events and encourage restaurants to provide plant-rich menus and smaller portion sizes to minimize food waste and require rescue (e.g., direct to foodbanks or repurpose unsaleable food) and composting; host vegetarian potlucks; profile popular vegetarian recipes.



Reducing the energy consumed in our buildings and infrastructure.

Examples: conducting energy audits and retrofits; shifting to on-site renewables, using low impact building materials; living/working in smaller spaces; supporting workspace/community space sharing.



Reducing the overall consumption of stuff (consumable goods), through rethinking purchases, increasing sharing, reusing and repairing. Examples: hosting/participating in clothing or gear swaps, repair clinics, sharing clubs.



Reducing dependence on fossil fuel-based transportation.

Examples: shifting to healthier and sustainable alternatives – cycling, walking, transit; joining and promoting car-share programs. switching to electric vehicles.

So, let's do this in a way that also contributes to acting on the One Planet Living Principles.

HEALTH AND HAPPINESS

Encouraging active, sociable, meaningful lives to promote good health and wellbeing.

Health and happiness are essential components of a sustainable lifestyle. Leading a healthy and happy life enables us to form more cohesive communities, to be more tolerant, more productive and to enjoy vibrant and fulfilling lives. Key factors which contribute to health



and happiness include diet, exercise, interpersonal relationships, meaningful activities, involvement in community and civic life, a safe environment, levels of fuel and food poverty, interaction with nature, greater equity, opportunities to apply talent and creativity, and shared values. There are specific actions, which can be taken to promote all these factors, but health and happiness is also the outcome of many of the other One Planet Principles coming together.

EQUITY AND LOCAL ECONOMY

diverse workforce.

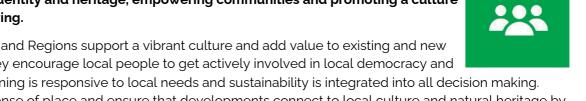
Creating safe, equitable places to live and work which support local prosperity and international fair trade.

One Planet Cities and Regions celebrate diversity and foster a sense of inclusion, recognizing the needs of local people including older people, younger people, people with disabilities, single people and families and people of all ethnicities and sexual orientations. They also promote a living wage for all workers and put in place policies and provide conditions fostering a happy, healthy and

CULTURE & COMMUNITY

Nurturing local identity and heritage, empowering communities and promoting a culture of sustainable living.

One Planet Cities and Regions support a vibrant culture and add value to existing and new communities. They encourage local people to get actively involved in local democracy and governance. Planning is responsive to local needs and sustainability is integrated into all decision making. They provide a sense of place and ensure that developments connect to local culture and natural heritage by using traditional construction materials, public art, vernacular design and native planting.



LAND AND NATURE

Protecting and restoring land for the benefit of people and wildlife.

Land and nature provide essential services to people – such as food, water and protection from flooding or drought – as well as providing a home for wildlife. One Planet Cities and Regions protect and restore natural systems for the benefit of people, local wildlife and the biosphere.



SUSTAINABLE WATER

Using water efficiently, protecting local water sources and reducing flooding and drought.

Water is a very local issue. In many parts of the world, clean water is not an abundant resource, nor is it available to everyone. As climate change occurs and the earth's population increases, it is likely that even more areas will become more water stressed though drought and/or more prone to flooding. The process of storing, treating and transporting water has a wide range of environmental impacts and if energy from fossil fuels is used in the process, the water will have a carbon footprint.



Promoting sustainable humane farming and healthy diets in local, seasonal organic food and vegetable protein.

Food and food growing has a huge impact on a range of issues including physical and mental health, culture, heritage, climate change, biodiversity and the local economy. It represents about one third of our ecological footprint globally. Food also contributes to greenhouse gas emissions through conversion of forests to pasture, methane emissions from cattle, the energy used to produce pesticides and fertilisers, nitrous oxide emissions from fertilisers, transporting food many miles and packaging food. A quarter of global greenhouse gas emissions come from agriculture.



Reducing the need to travel, and encouraging walking, cycling and other low carbon transport.

An overly car-dependent society contributes to carbon emissions and local air pollution, takes up valuable land for roads and buildings, reduces the attractiveness and safety of the public realm and promotes obesity and respiratory illness. In many cities, commuting is one of the main contributors to reported unhappiness. Urban areas that are not dominated by cars are generally healthier, more neighbourly and more attractive.



MATERIALS AND PRODUCTS

Using materials from sustainable sources and promoting products which help people reduce consumption.

One Planet Cities and Regions support a circular, collaborative, sharing economy. Prioritise materials and products with a low environmental impact across their lifecycle, and promote



those that have positive social and environmental impacts, such as sustainable timber, which stores carbon.

ZERO WASTE

Reducing consumption, reusing and recycling to achieve zero waste and zero pollution.

Waste can be considered a resource and can be part of the circular economy, so One Planet Cities and Regions promote the waste hierarchy to (1) reduce consumption, (2) prevent waste, (3) reuse materials and products, (4) recover energy from waste, (5) dispose to landfill.



ZERO CARBON ENERGY

Making buildings and manufacturing energy efficient and supplying all energy with renewables.

The energy we use has a big impact on the carbon emissions of buildings, manufacturing and agriculture. Cities and regions have an important role to play in increasing the efficiency of buildings and operations and promoting renewables, helping both citizens and business owners in Saanich reduce their carbon footprint.

WORKING ACROSS THE PRINCIPLES

Some of the most powerful actions are those that contribute to multiple principles and footprint priorities all at the same time. Here's an example of how action on food can have benefits across all One Planet Living Principles.



Sample Action - Shifting to local, sustainable food:

- Health & Happiness Shifts toward organic, plant-based and local foods can make us healthier.
- Equity & Local Economy Local food sustainability includes growing meat and dairy alternatives that are less expensive, and that can build the local economy, provide fair jobs and fair access to food. This can also include developing new businesses to re-purpose food waste.
- Culture & Community Increasing local food growing (including meat and dairy alternatives) can increase community independence by creating local food self-sufficiency, stimulating socially-interactive food gardens, and accommodating 'food cultures', particularly those of indigenous communities.
- Land & Nature Meat production is land and resource intensive. More plant-based foods production, especially when practices are in harmony with nature the better (e.g., supporting pollinators, water retention, and ecosystem health).
- Sustainable Water Sustainable agricultural practices can reduce water consumption (e.g., rain barrels, and natural techniques).
- Travel & Transport Local food production reduces 'food miles', and using lower carbon farm and
 transport vehicles can reduce the carbon footprint of the entire local food production, transportation and
 supply chain. Care must be taken that local practices are not more energy intensive than those for
 imported food.
- Materials & Products Food can play a big role in the 'circular economy' both food and the materials used to produce and distribute food can be recovered rather than landfilled, by re-distributing consumable food or for producing new food items (e.g., compost).
- Zero Waste Local and sustainable food can also be about providing education about the harmful impacts of food waste that is generated along the supply chain and during consumption.
- Zero Carbon Energy Sustainable production practices and shifting to more plant-based diets can yield significant reductions in greenhouse gas emissions.