

## Future Living Skills - Travel Topic

### Group activity options for RURAL community residents

Use this alongside the Learning Guide on Travel, 2016 edition, from [www.sustainableliving.org.nz](http://www.sustainableliving.org.nz).

Note that separate activity options have been prepared to suit urban residents.

#### **Activity One: (Allow 10 minutes) Visioning 50% fewer privately owned and operated cars on the roads.**

**What you will need:** Whiteboard or large sheet of paper, markers.

On a large sheet or paper or a whiteboard, spend five minutes brainstorming changes that might transpire if there were 50% fewer cars *in the nearest urban community, one that you visit often.*

How might people be travelling in ways that are more sustainable? What other changes could you expect? In particular you may want to consider changes to air quality, noise, health of people in the community, employment opportunities, mental health and happiness, as well as changes to use of urban space (as fewer car parks and less road lanes are needed.)

After five minutes, spend two minutes discussing how you *feel* about the changes this community could experience with 50% fewer vehicles.

In the remaining time, discuss *how* your community might make this transition to 50% fewer cars. **In particular discuss what options might be available for parking and transit options for vehicles that have arrived from rural areas, out of town.**

You will get more ideas for your Vision as you work through the Travel Learning Guide.

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#### **Activity Two: (allow 15 mins) – Measuring Your Carbon Based Car Travel**

**What you will need:** Printout of next page, calculator, computer with WiFi internet access useful.

For each person in the group completing the table/chart: Think about an **average day** in this past week, on which you have used your car, ute or other personal vehicle.

Note down in the table below where you travelled, the purpose of this travel and approximately how many km's each return trip was, totalling your km's for that day at the bottom. You can calculate your kms by going to <http://www.distancesfrom.com/> to obtain distances, travel routes, and CO<sub>2</sub> measures for an average sized vehicle. To calculate the CO<sub>2</sub> emissions of other types of vehicles (small or larger cars, motorbikes, public transport, etc.) go to [www.enviro-mark.com/tools-and-resources/calculators](http://www.enviro-mark.com/tools-and-resources/calculators)

Working in pairs, discuss your results, and using the average calculation method supplied,

calculate the carbon emitted on each trip and the total emissions.

If this was an average or representative day, multiply your travel x365 to see on average how much carbon your current travel arrangements may be emitting each year. If there are always days in the week when you do not use a vehicle, adjust the multiplication factor accordingly.

Vehicle journey made from home to	Purpose of journey	Km's travelled for return trip	Carbon Dioxide Emitted <i>1km = 0.23kg CO<sub>2</sub><sup>1</sup></i>
<b>Total per day</b>			
<b>Total per year</b> <i>(total per day x365)</i>			

\* Example: 40km travelled on return trip.  $40 \times 0.23 = 9.2\text{kg CO}_2$  emitted from this trip.

Are you surprised? How could you have minimised your travel? What would your emissions have been if you had taken the bus? (see The Carbon Intensity of Travel bar chart in the Learning Guide).

Reviewing how much carbon dioxide you are emitting each year, what effect would it have in emissions if you decreased your transport carbon emissions by a tenth?: Reducing my carbon emissions by 10% would mean a reduction of \_\_\_\_\_ kilograms of carbon dioxide emissions.

Now discuss your findings with the wider group.

Did anyone have very low carbon emissions, whilst still travelling? If so, discuss what are they doing differently that others could employ?

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1 Value for an average car on a variety of road conditions. Taken from Enviro-Mark's Travel and Tourism Calculator at <http://www.enviro-mark.com/tools-and-resources/calculators>.

### **Activity Three: – (allow 10 minutes) Replacing Car Trips – Scenarios and Solutions**

**What you will need:** Pen, paper

Below are six scenarios. **Divide your group into three sub-groups (1, 2 or 3). In your sub-group spend five minutes brainstorming ways that the central character in each of your two scenarios could avoid taking a single occupancy car.** What travel options could reduce or avoid making a special trip in the car?

#### **Sub Group 1**

Scenario 1: Mum with 2 young kids on 2 ha farmlet. Supermarket is over 10 kms away.

Scenario 2: Able bodied commuter living in rural area. Work is in town (3km away). There is a steep hill on the way home.

#### **Sub Group 2**

Scenario 1: Elderly man in rural community. His wife is in hospital in neighbouring town.

Scenario 2: Eldest child turns 12. The nearest secondary school is 30km away.

#### **Sub Group 3**

Scenario 1: Wife has returned to work in the city to help supplement the family's rural income.

Scenario 2: Parents are treated like 'taxi drivers' for their teenagers' social and sporting lives!

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Now as a whole Group, share your suggestions and discuss how they might work. How might you encourage the character in your scenario to use an alternative to their car, to car pool, or to avoid making a trip altogether? How could you minimize perceived barriers to making change? You may like to look at some of the *Perceived Barriers and Solutions to Trying Alternative Transport – in the Travel Topic Learning Guide*.

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### **Activity Four: (Allow 10 minutes) Speedy Solutions – Fuel Efficient Driving and other Solutions for those unavoidable trips by Motorised Vehicle**

**What you will need:** Blank A4 sheets of paper, pens, timer

This fast and fun activity is especially for those car trips that cannot be avoided due to the lack of public transport or the longer distances you have to travel.

Place everyone in a circle or semi-circle and provide with paper. At the top of each sheet, each person should describe in 1 or 2 sentences a car trip they regularly take that they 'cannot avoid'. Then set a timer to 30 seconds and start. Everyone should immediately pass their sheet to the person on their right so that everyone now has a different sheet. Within the allotted 30 seconds each person should read the description then write down a different suggestion of what could be done to reduce fuel use on that trip. Suggestions should be different to those already written on the sheet. Repeat and continue until each person receives their own sheet back – or until 5 minutes have elapsed.

**Now, as a group, each share your favourite answers to the journey that you described. Some may be very useful and others may be just for fun! In the Travel Learning Guide you may find some other Suggestions for Fuel Efficient Driving that you may not have thought of.**

**Activity Five : (Allow 15 minutes) Minimise your Flying Footprint**

**What you will need:** Printout of this sheet, pen

There are several ways in which you can minimise your flying footprint – through reducing your domestic flights, reducing your international flights, and by supporting alternative modes of long distance travel that are more sustainable.

**Domestic Flights:** With your group, or as an individual, pick a destination **inside** New Zealand, and consider the following travel options. Rank them numerically in order from *Modest Effort (1)* to *Excellent Effort(10)* in the box beside it.

Bus part way, then fly to destination		Have a Flightless Year!	
Drive part way, then fly to destination		Take bus (including night bus option) all the way to destination	
Hitch to your destination (safe, with a burly friend!)		Reduce frequency of domestic flights by combining activities	
Reduce average number of domestic flights by half this year		Take train, bus and ferry to South/North Island	
Calculate your carbon footprint		Use video-conferencing for distant business meetings	

Once everyone has finished, as a group read the Answers and Explanations provided in the Appendix at the end of these notes.

**International flights:** Now with your group, or as an individual, pick a holiday or conference destination **outside** New Zealand, and consider the following travel options. Rank the various options again, 1 to 10, as you did for Domestic Flights.

Carbon offset your flight's emissions e.g. <a href="http://www.enviro-mark.com/tools-and-resources/calculators">www.enviro-mark.com/tools-and-resources/calculators</a>		Fly First Class rather than in your private jet! (just imagine)	
Have a Staycation or Holiday in NZ		Select flight route with fewest carbon emissions	
Fly Economy Class instead of Business Class		Eliminate domestic flight connections from your travel plan	
Reduce frequency of international flights taken		Cross the ocean by freighter ship	
Skype your family instead		Fly Business Class instead of First Class	

Once everyone has finished, as a group read the Answers and Explanations provided below.

**Supporting alternative modes of longer distance travel:** Feeling inspired and motivated by the last activity? With your group, or as an individual, commit to one or more actions of your choice that will both help reduce your carbon footprint as well as support alternatives to flying that, unlike flying, have the technology already available to be low carbon.

*I commit to \_\_\_\_\_ to reduce my carbon emissions from flying and/or support lower carbon alternatives for long distance travel.*

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**Activity Six – Reducing our Carbon Based Transport**

Your task for the following week is to try to reduce your carbon based travel by 10%

Review the number of km's you travelled in the previous activity 2 **\*Car Travel Carbon Emission Calculations** and note this at the bottom of the table below:

Now choose one day this week (group host or tutor could send a reminder email?) where you list where you travelled to, how you travelled and the distance in kms.

When trying to reduce your carbon fuelled transport kms by at least 10%, some ways to do this could be avoiding travelling altogether, increasing your use of alternative modes of transport, carpooling or telecommuting.

**Day of Week Chosen:** \_\_\_\_\_

Travelled to	Mode of transport (walking, car, bus, bike, public transport)	Distance kms (no carbon)	Distance in kms (using carbon fuelled transport)
1.			
2.			
3.			
4.			
		Total distance:	Total kms:

**Compare Kms Travelled on \*Average Day (from previous activity):** \_\_\_\_\_

**Kms Travelled on this Day:** \_\_\_\_\_

**Difference between the two:** \_\_\_\_\_

Bring the completed list above to next week's group session and note above the difference between the distance travelled on this day compared to the previous day used in the earlier activity.

At the start of the next session discuss as a group how you achieved your goal of reducing your carbon based travel by 10%, any obstacles you overcame and tips in helping others to try to do the same.

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Appendix. (refer to this only AFTER tackling Activity 5 **Minimise your Flying Footprint**)

**Answers and Explanations**

**Domestic Flights** (numbered and ranked from Modest Effort to Excellent Effort)

1. Calculate the carbon footprint of your intended flight.

*Awareness is the first step to making change. Compare your carbon emissions to alternatives such as taking the bus or even travelling by car. You can calculate Your Travel Carbon Footprint at [www.enviro-mark.com/tools-and-resources/calculators](http://www.enviro-mark.com/tools-and-resources/calculators)*

2. Combine activities on one domestic return flight, to reduce the number of flights you take overall.

*Look ahead in the year to see if you can combine trips – say taking a trip to see your sister at the same time as you attend a business meeting. You may find that you can do several activities with one flight to reduce the overall number of flights you have to take in a year.*

3. Drive to a closer airport, then fly
4. Bus to a closer airport, then fly
5. Hitch to airport, taking a burly friend if you need safety in numbers!

*Hitching requires trust in our society. Within your group, talk about why the prevalence of hitching has decreased in New Zealand. What are the benefits of hitching and how could it become popular and perceived as safe again? Learn more about the joys and challenges of hitching and the steps that experienced hitchers advise to take to hitch safely at [www.wikihitch.com](http://www.wikihitch.com)*

6. Bus and ferry to your destination
7. Bus all the way to your destination, may include overnight bus

*By taking the bus (or train) you are financially supporting an alternative mode of transport that has a low carbon footprint and where there is current technology for it to become very low impact.*

8. Use video-conferencing facilities for business meeting instead of flying

*If you feel you cannot avoid flying as part of your work, keep talking about the benefits of video-conferencing. Your message will eventually gain popularity.*

9. Reduce flights in year by half.

10. Go flightless. Take a domestic flight-free pledge for this year – or more!

*The most challenging option of all, but also the most personally liberating! Be a model for others about how we can live a rich life without flying. (For inspiration from people who have chosen not to fly any more read *Beyond Flying* – Edited by Chris Watson.)*

## **International Travel - (numbered and ranked from Low Effort to Excellent Effort)**

### 1. Carbon offset

*The best way to reduce carbon emissions is to not burn the fossil fuel in the first place. Carbon offsetting can only go so far. For instance we would need to set aside 26300sqkm of regenerating forest to offset all the flights coming into and leaving New Zealand in just one year. This is the equivalent area of 15 Stewart Islands! However carbon offsetting is a good action to take if you find you must fly so long as you research and evaluate the carbon offsetting scheme you choose, as some are phoney!*

### 2. Fly economy class instead of business class

*How many share the plane space matters a lot!<sup>2</sup> Flying economy class uses 3.04x less emissions per passenger than flying business class, 9.28x less emissions than First Class and many times less emissions than flying in a private jet!*

### 3. Select a route with the fewest carbon emissions

*Selecting your route can make a considerable difference over a long-haul flight. Compare different air operators for their carbon footprint. For example you could save as much as 1Tonne CO<sub>2</sub>e on a return flight to the UK. Use a carbon calculator to assist you e.g. [www.enviro-mark.com/tools-and-resources/calculators](http://www.enviro-mark.com/tools-and-resources/calculators)*

### 4. Eliminate domestic flight connections from within your travel itinerary

*There are alternatives to domestic flights. Train and bus may allow you see more of the country you are visiting. Even driving alone will have less impact than flying.*

### 5. Reduce frequency of international flights

*Consider travelling overseas every third year, or every fourth year...*

### 6. Fly Business Class instead of First Class

### 7. Fly First Class scheduled instead of using a private jet (let's pretend)

### 8. Travel by freighter ship rather than fly, add a sea adventure!

*Instead of flying across the ocean from NZ, why not take a freighter ship. Calculated to have 2% of the CO<sub>2</sub>-e emissions per passenger<sup>3</sup>, there are cabins on freighters that sit empty every day. To find out more go to [www.freightertravel.co.nz](http://www.freightertravel.co.nz)*

### 9. Skype (or equivalent video-conference) with your loved ones 'face to face'

### 10. Holiday in New Zealand instead of overseas.

*Fantastic! By choosing to holiday here in New Zealand you are not only greatly reducing your carbon emissions but spending your money here and supporting the New Zealand economy, so that others can enjoy holidays too!*

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2 Bofinger and Strand (2014) Calculating the carbon footprint of different classes of air travel. Policy Research Working Paper 6471, The World Bank Development Research Group Environment and Energy

3 Dr Inga Smith, Department of Physics, University of Otago, Unpublished data, 2015. Aired on Eco Living in Action Otago Access Radio, <http://www.accessradio.org/Player.aspx?eid=ad8572f1-8230-4214-96cd-7aaf444b8e1c>