

individual choices  
unit two

# ask

What are the impacts of my lifestyle choices?

## acquire

- PowerPoint presentation
- Websites
- Teacher and student handouts
- Materials: Class set of laptops or access to a computer lab

## explore

- Interactive PowerPoint presentation
- Websites

## analyze

- Comparison of Footprints exercise
- GIS activity

## act

- Reflective paragraph
- Participation in class Town Hall meeting

# individual choices unit two



## U2L1 | Conscious consumer

This lesson will guide students in a process of reflection and understanding of their own consumption patterns and the impact their choices have on our planet.

**subjects:** Geography, Civics, English

### timing: Activity 1

Throw-Away Society | **60 minutes**

**Note:** Follow-up with Activity 5

### Activity 2

How BIG is my Footprint | **60 minutes**

**Note:** follow-up with Activity 3 & 4

### Activity 3

Analyzing Our Ecological Footprints | **30 minutes**

### Activity 4

Understanding the Ecological Footprint Calculator | **30 minutes**

### Activity 5

Changemakers | **30 minutes**

### Activity 6

Lifeblood of a Modern Society | **75 minutes**

## learning goal

Students will reflect on their patterns of consumption and the impacts of their lifestyle on our earth.

## success criteria

- Completion of 'Story of Stuff Handout.'
- Participation in classroom discussion and compilation of list of everyday waste.
- Completion of one page reflection or cartoon on 'Change Maker' Personality type.
- Completion of Ecological Footprint Calculator.
- Completion of Ecological Footprint Analysis.
- Participation in the Stakeholders Meeting.

## ask

- How do my consumption patterns compare to other Canadians? Other nationalities?
- What are the impacts of my lifestyle choices?
- Who are the stakeholders in the Canadian Tar Sands and what are the factors that impact each of them?

# individual choices unit two



## U2L1 | Conscious consumer

### acquire

#### PowerPoints

- Ecological Footprint
- Fossil Energy
- Oil Sands

#### Websites

- [www.storyofstuff.org](http://www.storyofstuff.org)
- [www.chrisjordan.com](http://www.chrisjordan.com)
- [ifitweremyhome.com](http://ifitweremyhome.com)
- [www.footprintnetwork.org](http://www.footprintnetwork.org)
- [www.panda.org/lpr/gfootprint](http://www.panda.org/lpr/gfootprint)

#### Teacher and student handouts

- Story of Stuff Handout
- Ecological Footprint Calculator Handout
- Ecological Footprint Analysis Handout

#### Materials

- Class set of laptops or access to a computer lab
- Activity 1: Story of Stuff Handout
- Activity 2: Ecological Footprint Calculator Handout
- Activity 3: Analysis of Footprint Handout
- Activity 4: Handout
- Activity 5: Story of Stuff Changemaker
- Activity 6: Town Hall Meeting Handout

### explore

#### Activity 1 | Throw-Away Society

This activity will help students to self-examine their consumption patterns.

- Visit [www.chrisjordan.com](http://www.chrisjordan.com) to have a visual of the numbers of 'stuff' that is thrown away.
- Students will watch *The Story of Stuff* (21 minutes) and complete the accompanying handout. Students will learn about the five major steps of the materials economy: Extraction; Production; Distribution; Consumption and Disposal.
- Students will list all the things they have thrown into the garbage or recycling/compost in the past 24 hours, and then compile a master class list.
- Ask students in small groups 'What factors they think drive consumption?' Share each group's findings with the class.

#### Activity 2 | How BIG is my Footprint

This activity will review the term 'Ecological Footprint' and calculate their own ecological footprints.

- Ask students what they did before they arrived in class today? Ask students to associate the activities they did prior to arriving in class to how the Earth provided the resources they needed to do this task.
  - For example:
    - I brushed my teeth. Where did the ingredients come from to make the paste?
    - Think about the water that you used to rinse.
    - The materials needed to make your toothbrush
- Review the idea of the ecological footprint—SLIDE SHOW
- Students will complete the Ecological Footprint Calculator Handout ([Footprintnetwork.org](http://Footprintnetwork.org))

# individual choices unit two



## U2L1 | Conscious consumer

### analyze

#### Activity 3 | Analyzing our ecological footprints

This activity will have students compare their ecological footprints with their classmates and make country comparisons.

After students complete the Ecological Footprint Calculations Worksheet, students should compile their results as a class and then compare their results with those from other countries.

- Students will complete ANALYSIS OF FOOTPRINT HANDOUT
- **Option 1:** Students will visit [ifitweremyhome.com](http://ifitweremyhome.com) and compare Canada to any other country. They will choose two of the comparisons and hypothesize why these differences are present.
- **Option 2:** Complete the GIS Ecological Footprint Activity (see handout part 2).

### act

#### Activity 4 | Understanding the ecological footprint calculator

This activity will have students focus on one factor used to calculate the ecological footprint.

Choose one of the following factors used to calculate your ecological footprint.

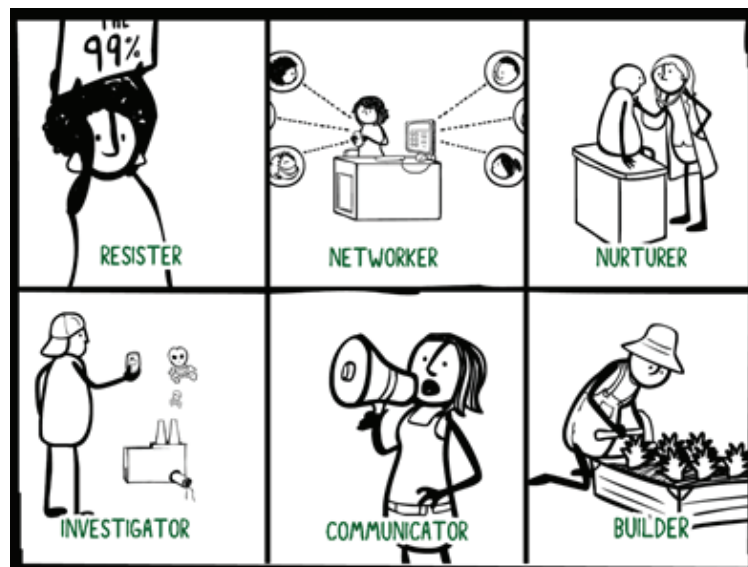
- diet
- common mode of transportation
- type of shelter
- consumption of electronics
- electricity use

And complete a one page explanation of why that factor is taken into consideration when calculating your ecological footprint and how it might vary from Canada to another part of the world.

#### Activity 5 | Changemaker

This activity will have students reflect on how they might contribute to reducing their community's consumption patterns.

The Story of Stuff (SOS) has become a movement of people who have watched *The Story of Stuff* by Annie Leonard and have joined forces to express how they can become 'change makers.' In the SOS they categorize ordinary citizens into the following categories:



# individual choices unit two



## U2L1 | Conscious consumer

### Option 1

Which changemaker are you? Write a one page response describing which category or categories fit your personality the best. Give concrete examples of why you fall into this category and how your personality can lend itself to creating positive change. How could you in your role make change in your consumption patterns?

### Option 2

Draw a cartoon that illustrates one type of changemaker. Your cartoon should include at least five cartoon boxes that clearly tell how this type of person is creating change in their community.

### Activity 6 | Lifeblood of modern society

This activity will have students learn about the fossil fuel industry globally and within Canada.

- Review images and graphs in Powerpoint: Fossil Energy.
- Students should create a t-chart in pairs that lists the pros and cons of developing the tar sands in Alberta.

Pros: creating jobs, infrastructure, investment in Alberta, strengthen relationship with USA

Cons: destruction of environment, contaminating water, breaking treaty agreements, supporting oil dependency

- Students should watch PowerPoint presentation: Oil Sands
- Host a Town Hall Meeting for the stakeholders
- Students are given roles:
  - Oil Company Executive working in Alberta
  - First Nations Leader in Northern Alberta
  - Government of Alberta
  - Skilled Labourer working in the Oil Sands
  - Environmentalist
  - Albertan Farmer

Students will break into five groups and each group will represent a stakeholder in the Oil Sands.

Class will participate in a Town Hall Meeting.

Students will write a journal reflection on the following questions:

1. What did you learn from this activity?
2. How did your ideas about the topic change during this activity, if at all? Explain what caused your ideas to change or why you think your ideas did not change at all.
3. What does perspective mean? Where does our perspective come from? How does our perspective shape how we see the world?

## references

(n.d.). Retrieved February 18, 2015, from [www.chrisjordan.com](http://www.chrisjordan.com)

Story of Stuff. (n.d.). Retrieved February 18, 2015, from [storyofstuff.org](http://storyofstuff.org)

Changemaker Personality Quiz - The Story of Stuff Project. (n.d.). Retrieved February 18, 2015, from [storyofstuff.org/changemaker](http://storyofstuff.org/changemaker)

(n.d.). Retrieved February 18, 2015, from <http://www.footprintnetwork.org/en/index.php/GFN/>

Footprint Interactive Graph. (n.d.). Retrieved February 18, 2015, from [www.panda.org/lpr/footprint](http://www.panda.org/lpr/footprint)

# individual choices unit two



## U2L1 | Conscious Consumer

### U2L1A1 | Throw away society | TEACHER ANSWER KEY

#### overview

This lesson will help you to self-examine your consumption patterns.

#### learning goal

- To gain a better understanding of your own consumption patterns and what drives them.

#### success criteria

- Compile a master list of what you have thrown away, recycled or composted in the past 24 hours, discuss what drives your consumption, and watch *The Story of Stuff* and complete the below questions.

#### Inquiry question

- What are my consumption patterns and what is driving them?

Watch the video *The Story of Stuff* by Annie Leonard and answer the following questions:

- 1. Briefly describe the five stages of the materials economy.**
  - a EXTRACTION:** removing natural resources (chopping down trees, mining, etc.)
  - b PRODUCTION:** use energy to change the natural resources into products (usually mixing toxic chemicals with natural resources)
  - c DISTRIBUTION:** moving the products to the consumers (trying to keep prices low and profits high for producers)
  - d CONSUMPTION:** citizens buy the products (shopping and more shopping)
  - e DISPOSAL:** throwing products out (landfill)
- 2. What is meant by ‘externalizing the costs of production?’**

The real costs of making stuff is not captured in the price because producers do not pay workers fairly, loss of health for workers and local people are not accounted for and the cost of environmental destruction and later clean up is not taken into account.
- 3. Why did the modern consumer economy come into being?**

After WW2 governments were looking at how to ramp up the economy and decided they needed citizens to consume more (capitalism). For our economic system to function the production, consumption, and disposal of ‘stuff’ must constantly increase.
- 4. What are some of the social and community interests being neglected while we are consuming ‘stuff?’**

Time for friends, family, leisure, and building community.
- 5. What is happening to the levels of measured happiness? Why?**

It is declining. People have less time because they are working more. Constant bombardment from advertising to buy more.
- 6. Summarize the steps in the treadmill.**

Buying, disposing, buying more, more production, more consuming....

# individual choices unit two



## U2L1A1 | Throw away society

### overview

This lesson will help you to self-examine your consumption patterns.

### learning goal

- To gain a better understanding of your own consumption patterns and what drives them.

### success criteria

- Compile a master list of what you have thrown away, recycled or composted in the past 24 hours, discuss what drives your consumption, and watch *The Story of Stuff* and complete the below questions.

### Inquiry question

- What are my consumption patterns and what is driving them?

Watch the video *The Story of Stuff* by Annie Leonard and answer the following questions:

1. Briefly describe the five stages of the materials economy.
2. What is meant by 'externalizing the costs of production?'
3. Why did the modern consumer economy come into being?
4. What are some of the social and community interests being neglected while we are consuming 'stuff?'
5. What is happening to the levels of measured happiness? Why?
6. Summarize the steps in the treadmill.

**U2L1A2** | How BIG is my footprint?

**overview**

This lesson will review the term ‘Ecological Footprint’ and have you calculate your own ecological footprint.

**learning goal**

- To understand and calculate your Ecological Footprint.

**success criteria**

- You will complete the Ecological Footprint Calculator Handout.

**Inquiry question**

- What is the ecological footprint and how big is my footprint?

**explore**

Watch the video *The Story of Stuff* by Annie Leonard and answer the following questions:

1. Go to [footprintnetwork.org/en/index.php/GFN/page/calculators](http://footprintnetwork.org/en/index.php/GFN/page/calculators)
2. Select your location as ‘ONTARIO’
3. Begin the footprint calculator
4. How many planet Earths would be needed if everyone lived like you? \_\_\_\_\_
5. How many global hectares of Earth’s productive area would be needed to support your lifestyle? \_\_\_\_\_
6. What is the largest area on the pie chart for your lifestyle needs? \_\_\_\_\_
7. What is the smallest area on the pie chart for your lifestyle needs? \_\_\_\_\_
8. Explain two ways in which you could reduce your ecological footprint.

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**U2L1A3** | Analyzing our ecological footprints

2. Using the data found at [www.panda.org/lpr/gfootprint](http://www.panda.org/lpr/gfootprint), compare your class' average to the Canadian average. How does it compare? Provide two–three possible reasons why your class deviates from the Canadian average.

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3. How many acres does the average American consume? The average Russian?

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4. What implications could this data have in regards to the long term health and sustainability of our planet?

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## U2L1A3 | Ecological footprint

### overview

This lesson will have you compare your ecological footprints with your classmates and make country comparisons.

### learning goal

- To be able to describe and understand the relationships between wealth and a nation's ecological footprint, using GIS.

### success criteria

- You will complete the GIS Ecological Footprint Activity.

### Inquiry question

- “Is Ecological Footprint just another measure of wealth?”

### Comparing ecological footprint to wealth

Follow the steps for creating a series of maps using ArcGIS (version 10.1). These maps will help you see patterns and trends related to the ecological footprint of nations.

- Open ArcMap.
- Select *A New Empty Map* and click *Okay*
- Find and click the *Add Data* button in the tool bar (image of a black plus sign)
- Connect to the data folder on the Shared drive
- Go to the data directory, double-click *EcoFootprint.gdb* then click *globaldata*, then *Add*

### To display ecological footprint...

- Right-click *globaldata* in the Layers menu
- Choose *Properties*
- Choose the *Symbolology* tab
- In the Show window, choose *Quantities* and then *Graduated Colours*
- Under *Value Field*, use the drop down arrow and choose *EF\_2007*

To display the ecological footprint data in a way that allows us to understand the levels, you need to reclassify the data. To reclassify...

- Choose *Properties*
- Choose the *Symbolology* tab
- Under *Classification*, change *Classes* to 5
- Click the *Classify* button
- Click the *Exclusion* button (this will allow students to exclude the -99 values – no data)
- Make sure the *Query* tab is selected, then double-click “EF\_2007”, single-click ‘=’ then click the *Get Unique Values* button and double-click -99 from the list
- Before choosing *OK*, click the *Legend* tab, checkmark the ‘Show symbol for excluded data,’ make the symbol ‘hollow’ (click *OK* to accept) and enter ‘No Data’ for the *Label*.
- Then click *OK*
- Click *OK* again

## U2L1A3 | Ecological footprint

- At this point, you may notice that the Range and Labels are still registering -99. This is a bug in the program and to fix it you simply click on the Value dropdown and choose EPI then click back on EF\_2007. The exclusion will still hold and you should end up with 5 classes starting at 0.
- To set more usable classes, under Range, click the numbers beside each coloured symbol and set them to:
  - 2
  - 4
  - 6
  - 8
  - 10.68
- Click *Okay*
- Rename the map layer *globaldata* to Ecological Footprint—click on the name once to highlight it and then once to allow you to rename it
- Rename the EF\_2007 filename to hectares (for the units)

This map displays ecological footprint by nation.

### To Display GNI PPP per capita...

- Find and click the *Add Data* button in the tool bar (image of a black plus sign)
- Add the wealth.shp layer
- Right click wealth in the Layers menu
- Choose Properties
- Choose the Symbology tab
- In the Show window, choose Quantities and then Graduated Colours
- Under Value Field, use the drop down arrow and choose GNI\_pc\_11

To display the wealth data in a way that allows us to understand the levels, you need to reclassify the data. To reclassify...

- Under Classification, change Classes to 5
- Click the *Classify* button
- Click the *Exclusion* button (this will allow students to exclude the -99 values – no data)
- Make sure the Query tab is selected, then double-click “GNI\_pc\_11”, single-click ‘=’ then click the Get Unique Values button and double-click -99 from the list
- Before choosing OK, click the Legend tab, checkmark the ‘Show symbol for excluded data,’ make the symbol ‘hollow’ (click OK to accept) and enter ‘No Data’ for the Label.
- Then click OK
- Click OK again
- At this point, you may notice that the Range and Labels are still registering -99. This is a bug in the program and to fix it you simply click on the Value dropdown and choose another field name then click back on EF\_2007. The exclusion will still hold and you should end up with 5 classes starting at 0

**U2L1A3** | Ecological footprint

- To set more usable classes, under Range, click the numbers beside each coloured symbol and set them to:  
0  
4000  
10000  
20000  
40000  
86440
- Click Okay
- Rename the map layer wealth to Wealth—click on the name once to highlight it and then once to allow you to rename it
- Repeat for the GNI\_pc\_11 and change it to \$

This map displays Gross National Income per capita by nation.

**Map 1: Ecological footprint**

This map displays Ecological Footprint by country. What are the patterns on this map? Be sure to use proper geographic terminology when describing what you see.

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**Map 2: Wealth**

This map displays GNI PPP per capita for each country in the world. Using the Internet, define GNI PPP per capita:

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**U2L1A3** | Ecological footprint

What are the patterns on this map? Be sure to use proper geographic terminology when describing what you see (such as north, south, east, west, region names, country names, continent names, where are the dark regions, where are the lighter ones etc.)

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**Analysis**

Is ecological footprint another measure of wealth? Answer this by describing the similarities and/or differences between the patterns on the maps. Provide at least two examples to support your opinion.

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## U2L1A4 | Understanding the ecological footprint calculator

### overview

This activity will have you focus on one factor used to calculate the ecological footprint.

### learning goal

- To better understand how one factor contributes to the ecological footprint calculation.

### success criteria

- You will research and then write a one-page essay on a specific factor used to calculate ecological footprints.

### Inquiry question

- What factors are taken into consideration when calculating your ecological footprint? Why?

Choose one of the following factors used to calculate your ecological footprint:

- diet
- common mode of transportation
- type of shelter
- consumption of electronics
- electricity use

And complete an one page explanation of why that factor is taken into consideration when calculating your ecological footprint and how it might vary from Canada to another part of the world.



# individual choices unit two

## U2L1A5 | Changemaker

### overview

This activity will have you reflect on how you might contribute to reducing your community's consumption patterns.

### learning goal

- To reflect and then articulate in a one page response or through a comic strip, how you can be a 'Changemaker.'

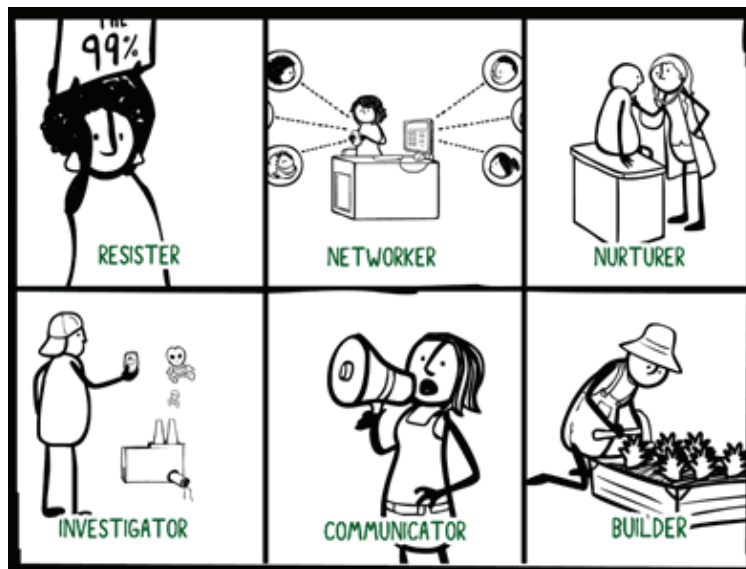
### success criteria

- You will compose a one page response or create a comic strip.

### Inquiry question

- How does your personality lend itself to creating positive change in your community?

The Story of Stuff (SOS) has become a movement of people who have watched *The Story of Stuff* by Annie Leonard and have joined forces to express how they can become 'change makers.' In SOS they categorize ordinary citizens into the following categories:



### Option 1

Which changemaker are you? Write a one page response describing which category or categories fit your personality the best. Give concrete examples of why you fall into this category and how your personality can lend itself to creating positive change. How could you in your role make change in your consumption patterns?

### Option 2

Draw a cartoon that illustrates one type of changemaker. Your cartoon should include at least five cartoon boxes that clearly tell how this type of person is creating change in their community.



## U2L1A6 | Lifeblood of modern society

### overview

This activity will have you learn about the fossil fuel industry globally and within Canada.

### learning goal

- To better understand why fossil fuels are in such high demand, the impacts of their extraction and use, and how this industry impacts people.

### success criteria

- Students will create a t-chart showing the pros and cons of further developing the tar sands.
- Students will participate in a classroom Town Hall Meeting and then complete a journal reflection.

### Inquiry question

- How do different stakeholders influence the development of the Albertan Oil Sands?
1. You will review images and graphs in the PowerPoint: Fossil Energy.
  2. You will create a t-chart in pairs that lists the pros and cons of developing the tar sands in Alberta.
  3. You will watch the PowerPoint presentation: Oil Sands.
  4. You will participate in a Town Hall Meeting for stakeholders in the Oil Sands Industry.

You will be assigned one of the following roles:

- Oil Company Executive working in Alberta
- First Nations Leader in Northern Alberta
- Government of Alberta
- Skilled Laborer working in the Oil Sands
- Environmentalist
- Albertan Farmer

Break into five groups and each group will represent a stakeholder in the Oil Sands.  
The class will participate in a Town Hall Meeting.

5. Following the Town Hall Meeting, you will write a journal reflection on the following questions:
  - a What did you learn from this activity?
  - b How did your ideas about the topic change during this activity, if at all?
  - c Explain what caused your ideas to change or why you think your ideas did not change at all.
  - d What does perspective mean? Where does our perspective come from? How does our perspective shape how we see the world?

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# Our Ecological Footprint

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## What is an Ecological Footprint?

Image: Phil Testemale in Wackernagel and Rees, 1996)

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Figure 1.3: Converting Consumption into Land Area. The production and use of raw goods and services depends on various types of ecological productivity. These ecological productivities can be converted to land area requirements. Summing the land requirements for all significant categories of consumption and waste emission the EF for the advanced population.

Image: Phil Testemale in Wackernagel and Rees, 1996)

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Figure 1.4: Your Footprint. The average North American footprint measures 4 to 5 hectares or is comparable to three-plus city blocks.

Image: Phil Testemale in Wackernagel and Rees, 1996)

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LAND APPROPRIATION PER CAPITA (RICH COUNTRIES) (IN HECTARES)

1900      1950      1995

ECO-PRODUCTIVE LAND AREA AVAILABLE PER CAPITA (WORLD) (IN HECTARES)

5.6      3      1.25 ADBLE

Image: Phil Testemale in Wackernagel and Rees, 1996)

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“Most [high income economies] are running massive unsustainable ecological deficits with the rest of the world. Technology and trade have merely obscured this relational truth by displacing the negative consequences of growth to distant ecosystems and the future. Rising productivity and incomes produce overweening confidence in human ingenuity while imposing ever-larger ecological footprints on the Earth.”

- William Rees, UBC

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Figure 2.7: A fair Earthshare is the amount of land each person would get if all the ecologically productive land on Earth were divided evenly among the present world population. If your present Earthshare were a circular island it would have a diameter of just 138 metres. One sixth of your island would be arable land, the rest pasture, forest and wilderness, and built-up area. Clearly, as the population increases, our earthshares shrink. Also, for each person whose Ecological Footprint exceeds his/her fair earthshare by, say, a factor of three (as do North Americans), three other people would have to content themselves with only a third of a share for global sustainability. — Any volunteers?

Image: Phil Testemale in Wackernagel and Rees, 1996

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“The UN Development Programme estimates that a child born in an industrialized country contributes more to consumption and production over its lifetime than do 30–50 children born in developing countries.”

- UNEP Industry and Environment, 1999

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**Missing: 4 Phantom Planets**

REES (in the 1990s): If today's entire world population enjoyed the same consumer lifestyles as residents of North America, it would take 4 additional Earth-like planets to accommodate everyone sustainably!

(The World Ecological Footprint network now places this at 5!)

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soccer field = ~2 acres (~0.8 ha)

Canadian average footprint = 7 gha (~9 soccer fields worth of biological capacity)

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**The Ecological Footprint – World Map**

Source: <http://www.worldmapper.org/display.php?selected=322>

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**The Footprint Quiz**

[www.footprintnetwork.org/en/index.php/GFN/page/calculators](http://www.footprintnetwork.org/en/index.php/GFN/page/calculators)

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# How does your life depend upon fossil energy?

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world's Net Primary Energy supply: 80% fossil fuels

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explosive industrial growth

rise of auto-based societies... & urban form

Industrialization of agriculture

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What is powering this picture?

81% fossil energy

'lifeblood' of industrial metabolism

1/3 Oil

2006

Coal	26.5%
Oil	34.4%
Gas	20.5%
Hydro	2.2%
Nuclear	8.2%
Other**	8.1%
Combustible renewables	0.1%

11 741 Mtoe

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## World Fossil Energy Consumption

US Energy Sources, 1850-2005

Million tons of oil equivalent

	1900	1999
Coal	501	2122
Oil	18	2940
Natural Gas	9	2173

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## 1973 and 2006 fuel shares of TPES\*

1973: 6 115 Mtoe

2006: 11 741 Mtoe

## TOTAL PRIMARY ENERGY SUPPLY

World

81%

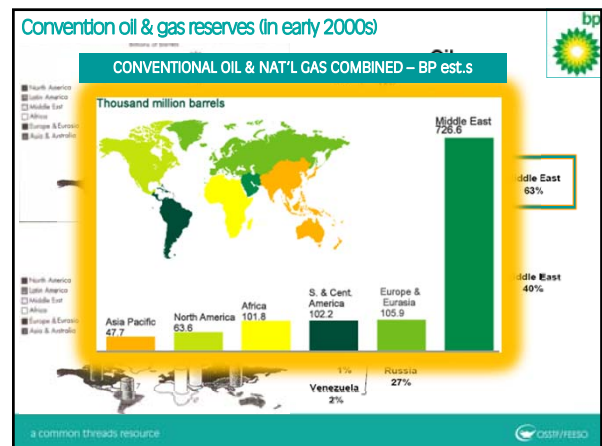
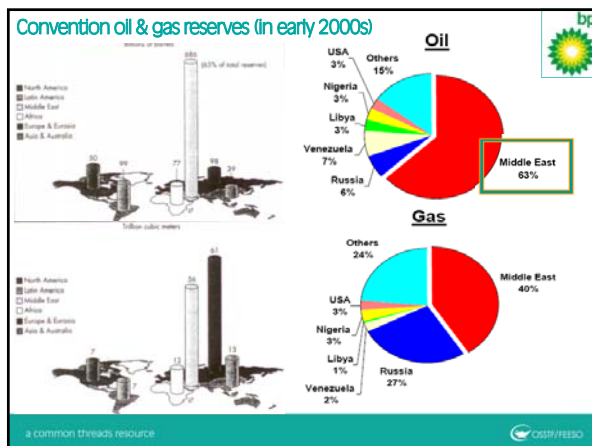
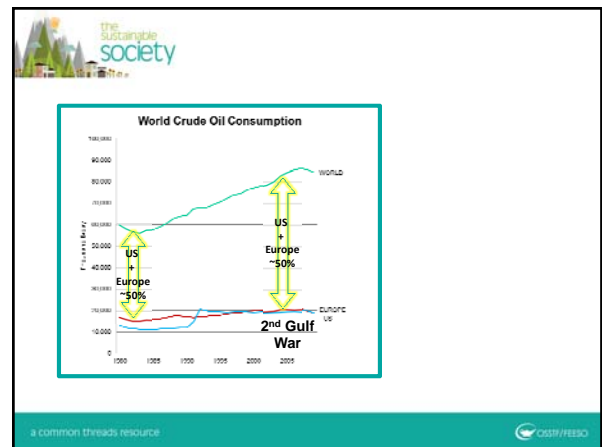
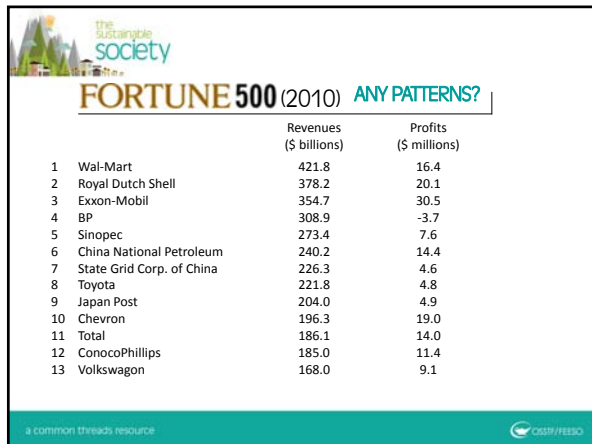
In 2006 (of this 81%)

- OIL ~34.4%
- COAL ~26%
- NAT'L GAS ~20.5%

Mtoe: megatonne of oil equivalent

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**BUT also, very recently...**

**The Resource**  
Canada has the third largest oil reserves in the world. 97% of these reserves are in tar oil sands.

**Oil sands**  
Bitumen  
Location

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OSST/PEESQ

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13 November 2013 Last updated at 16:15 ET

**US oil output beats imports for first time in 18 years**

The amount of output has mostly been due to hydraulic fracturing in places like North Dakota and Texas.

**US domestic crude oil production has exceeded imports for the first time since 1982, according to the Energy Information Administration (EIA).**

The EIA said petroleum imports were at their lowest since 1981, partially due to surging domestic production from hydraulic fracturing, or fracking, in October. US crude oil output averaged at 7.7 million barrels per day (bpd).

The EIA says it expects output to exceed 8.5 million bpd by 2014.

The domestic oil boom has been due mostly to fracking, a new technique used to get oil from shale deposits in locations like North Dakota and Texas.

**Related Stories**

US to begin exporting 'fracked' gas

The resulting boom from 'frack' oil

US shale oil: the global power balance

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OSST/PEESQ

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**NATIONAL GEOGRAPHIC**

**Bakken Shale Oil**

**The New Oil Landscape**

The fracking boom in North Dakota has boosted the U.S. oil supply - but at what cost?

**CAPP** CANADIAN ASSOCIATION OF PETROLEUM PRODUCERS

**OIL AND NATURAL GAS PRIORITIES FOR A PROSPEROUS CANADA**

<http://ngm.nationalgeographic.com/2013/03/bakken-shale-oil/dabb-text>

a common threads resource

OSST/PEESQ

the sustainable society

**The Oil Sands in Alberta**

Extraction 1: surface mining

'ripping away the Boreal to get to the oil' (Rees)

'the biggest open pit mining project in the world' (Burtynsky)

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OSST/PEESQ



the sustainable society

Alberta sits over one of the largest recoverable oil patches in the world, second only to Saudi Arabia.

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CSST/PEEQ

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Canada has become the largest supplier of oil to the U.S., with more than a million barrels per day coming from the oil sands.

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Currently 40 per cent of all oil produced in Canada is derived from the oil sands.

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### Oil sands are different than conventional oil.

- Take a lot of energy to extract the oil
- Use a lot of water
- Leave a very large environmental footprint

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the sustainable society

### The oil sands also...

- provide employment
- spur local economic growth
- reduce our reliance on foreign owned oil

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CSST/PEEQ





**As a class, we will be dividing into five groups.**

Each group will represent a stakeholder in the Albertan Oil Sands.

We will be holding a Town Hall Meeting.

The purpose of Town Hall Meetings is to provide a space for community members to share their perspective on a topic of concern. In this format, different perspectives are often shared.

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**Some stakeholders include:**


Oil Company Executive	First Nations People living in Northern Alberta	Government of Alberta	Alberta Farmer	Environmentalist
<a href="http://www.suncor.com/en/about/257.aspx">http://www.suncor.com/en/about/257.aspx</a>	<a href="http://www.oilsandstruth.org/topics/indigenou">http://www.oilsandstruth.org/topics/indigenou</a>	<a href="http://www.energy.alberta.ca/AboutUs.asp">http://www.energy.alberta.ca/AboutUs.asp</a>	<a href="http://www.energy.alberta.ca/facoulib_psa">http://www.energy.alberta.ca/facoulib_psa</a>	<a href="http://www.pombina.org/oil-sands">http://www.pombina.org/oil-sands</a>

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**Step 1: Divide into five groups.**

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**Step 2: Read/ Research in your 'Expert Groups'**

Discuss the reading among your group.

What are the main ideas and facts presented?

Students appoint one person in their group to summarize their reading to the class.

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**Step 3: "Town Hall" discussion**

**Part 1: Summaries**

Arrange chairs in a circle, providing one chair per group.

The person assigned to summarize for each group sits in the chair. The other students then form a larger standing circle around the chairs. Each representative summarizes the reading assigned to the group. Just the facts.

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**Step 4: "Town Hall" discussion**

**Part 2: Comments and questions**

After all readings have been summarized, students seated in the circle can comment on what they have heard or to ask one of their peers a question.

Students in the outer circle are then allowed to enter the conversation by "tapping" the shoulder of someone in their own group and taking their seat.

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### Step 5: Debrief

After the discussion, students will reflect on the following questions in their journals and/or through a class discussion:



What did you learn from this activity?

How did your ideas about the topic change during this activity, if at all? Explain what caused your ideas to change or why you think your ideas did not change at all.

What does perspective mean? Where does our perspective come from? How does our perspective shape how we see the world?



# conscious consumer

## unit two



## ask

What is a sustainable food choice?

### acquire

- student & teacher handouts
- scissors
- PowerPoint presentation
- newspaper articles

### explore

- interactive PowerPoint presentation

### analyze

- questions and Answers on article "Debunking Sustainable Food Myths"

### act

- sustainable meal menu



## U2L2 | Sustainable food choice

This lesson will help students discover their food choices and the impact of their food choice. Students will explore food and how it impacts people, the planet and the profits. Finally, students will think about selecting foods that are sustainable. There is an option to create and serve a sustainable meal. Connected to food choice is an article “Debunking Sustainable Food Myths” by Emma Gilchrist with multiple choice and short answer questions that is set up in a similar fashion to the OSSLT.

**subjects:** Hospitality, Food and Nutrition, Green Industries, Environmental Science, English

**timing:** **Activity 1**

Food wants and needs sort sheet | **20 minutes**

**Activity 2**

Eco-Footprint food quiz | **20 minutes**

**Activity 3**

Sustainable food choice? | **30 minutes**

**Activity 4**

Sustainable meal menu | **20 minutes**

Extension activity is to make the sustainable meal | **75 minutes**

**Activity 5**

Article “Debunking Sustainable Food Myths” and worksheet | **30 minutes**

## learning goals

- To reflect on food choices in regards to wants and needs
- To understand what is my personal food footprint?
- To understand what are some of the criteria for a sustainable food choice?
- To create a sustainable meal menu.
- To complete multiple choice and short answer question on an article about sustainable food myths.

## success criteria

- Be able to sort out foods that they need and define the difference between a food need and want.
- Be able to interpret their results of a quiz for their eco-footprint on food.
- Completion of the worksheet on “What is a sustainable food choice?”
- Create a menu for a sustainable meal.
- Completion of the worksheet on the article “Debunking Sustainable Food Myths.”

# conscious consumer

## unit two



### U2L2 | Sustainable food choice

#### ask

##### Inquiry questions

- What is the difference between food needs and food wants?
- Do I eat sustainably?
- What is a sustainable food choice?
- Can I create a sustainable menu?
- Why is making sustainable food choice my responsibility?
- How can an awareness ad help to create a sustainable food system?

#### acquire

##### Activity 1

Food Wants and Needs sort sheet  
Scissors

##### Activity 2

Eco-Footprint food quiz  
Sustainable Food Choice PowerPoint U2L2P2

##### Activity 3

Sustainable food choice?  
Worksheet U2L2A3 “What is a sustainable food choice?”

##### Activity 4

“Debunking Sustainable Food Myths” question and answers  
“Debunking Sustainable Food Myths” article

#### explore

##### Activity 1 | Food wants and needs sort sheet

In this activity each student will begin to think about food and their food choices. To activate learning around food, think about foods that you need and foods that you want. Think about what makes a food that you need and a food that you want.

##### Step One—Explore Food Choices

Using the worksheet as the students to cut out and divide the cards into two groups:  
(this may be done in singly or in pairs)

- Foods that they need
- Foods that they don't necessarily need but want

##### Step Two—Group Discussion

As a group discuss how you sorted your cards. Consider how different people would define food wants and needs differently. Look at the piles of foods and see if there is anything that stands out...

- Which pile is more costly?
- Which pile creates more waste?
- Which pile is from a local source?

If you have time...

- Regroup the cards into a pile that you think makes the most money.
- Regroup the cards into a pile that you think is best on the environment.
- Regroup the cards into a pile that you should eat. This may link into the Government of Canada website on Eating Well with Canada's Food Guide. [healthycanadians.gc.ca/eating-nutrition/food-guide-aliment/index-eng.php](http://healthycanadians.gc.ca/eating-nutrition/food-guide-aliment/index-eng.php)



## U2L2 | Sustainable Food Choice

As a group discuss your food “needs” verses “wants.” Were there foods that you felt were missing? Were there foods that fell into needs but were more wants? What makes a food want verses a food need?

### Step three—Wrap Up

In your own words define the difference between a food want and a food need. A want is something you would like and a need is something you can't do without.

### Activity 2 | Sustainable Food Choice PowerPoint

As a class, students will go through five slides on their footprint on the environment in regards to food leading to the discovery of their personal food footprint.

1. Teacher presents first five slides of ‘My Eco-Footprint Human Impact on the Environment Quiz’ PowerPoint. An eco-footprint is a measure is a measure of the amount of natural resources consumed by an individual. Be sure to remind the students to write down the number on each slide and add it up at the end of the slides.

Included are some points to consider as you go through the slides.

- Question 1 looks at how often you eat meat or other animals? What are some concerns with eating meat? Why would this have an ecological impact?
- Question 2 is about eating out or fast food. What is the advantage of eating at home?
- Question 3 looks at how often you eat processed foods. What are the advantages and disadvantages of eating processed foods?
- Question 4 focuses on buying food that was grown locally or from someone that you knew produced it. Ask the students if they can name anyone that produces food and why this would be important? Why would this have an economical impact?
- Question 5 introduces the use of bottled water. See if any of the students know where bottled water originates and what some concerns with bottled water? A good resource is the *Story of Bottled Water*. [storyofstuff.org/movies/story-of-bottled-water/](http://storyofstuff.org/movies/story-of-bottled-water/). The video is 8:05 minutes.

2. See if there are any other thoughts on food before continuing. Have the students THINK, PAIR and SHARE their results of the food quiz. What does your number mean?

## analyze

### Activity 3 | What is a sustainable food choice?

In this activity students work in small groups (3–4) to answer the question “What is a sustainable food choice?.” The worksheet provided will break this question down into three headings of Planet—Environment, Profit—Economy and People—Culture and through research, articles and video a group response can be formulated.

1. Hand out the worksheet U2L2A3 “What is a sustainable food choice?” and have the students work in small groups. Provide each group with a copy of the handouts and, if possible, Internet access to research. The teacher will show the Sustainable Food Choice PowerPoint to highlight some of the key points to consider on sustainable food choices. Allow time for the students to come up with a list of ideas.
2. Teacher answers to the worksheet U2L2A3 “What is a sustainable food choice?” Answer sheet provided.



## U2L2 | Sustainable food choice

### act

#### Activity 4 | Sustainable meal menu

In this activity students will complete the reflective questions on their food choice. (Last slide of Food Choice PowerPoint).

- What have I learned about selecting foods that are sustainable?

Have the students look at food that will make a sustainable meal such as locally grown food or food without packaging. From the list of ingredients create a menu for a meal. This could be extended to the making of the meal.

By increasing their knowledge of their food selections it may lead to a change in food selection towards sustainability.

#### Activity 5 | Practice reading selection

Complete the handout formatted similar to the handouts for the Ontario Secondary School Literacy Practice Reading selection. The article is on “Debunking sustainable food myths” by Emma Gilchrist. The completion of the short answer questions will add more support to the idea of sustainability and food. One of the key inquire question in this article is why is making a food choice my responsibility?

Article for Practice Reading Assignment

Gilchrest, Emma. (2009, October 2). Debunking sustainable food myths. Canada.com. Retrieved from [www.canada.com/life/Debunking+sustainable+food+myths/2086662/story.html](http://www.canada.com/life/Debunking+sustainable+food+myths/2086662/story.html)

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Kaplan, Jonathan. 2010. (Natural Resources Defense Council). Eat Green: Our everyday food choices affect global warming and the environment. Retrieved from [www.nrdc.org/globalWarming/files/eatgreenfs\\_feb2010.pdf](http://www.nrdc.org/globalWarming/files/eatgreenfs_feb2010.pdf)

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Newcomer, Laura (2012, August 24). 33 Ways to Eat Environmentally Friendly. [healthland.time.com/2012/08/24/33-ways-to-eat-environmentally-friendly](http://healthland.time.com/2012/08/24/33-ways-to-eat-environmentally-friendly)

Shannon (2010, May 19). Why Food Sustainability Matters and 10 Things You Can Do About It. [www.simplebites.net/10-tips-for-sustainable-eating](http://www.simplebites.net/10-tips-for-sustainable-eating)

#### Article for practice reading assignment

Gilchrest, Emma. (2009, October 2). Debunking sustainable food myths. Canada.com. Retrieved from [www.canada.com/life/Debunking+sustainable+food+myths/2086662/story.html](http://www.canada.com/life/Debunking+sustainable+food+myths/2086662/story.html)



# conscious consumer unit two

## U2L2 | Sustainable food choice

### U2L2A3 | Sustainable food choice | TEACHER ANSWER KEY

#### overview

This activity will help you discover what are some of the things to consider when making a sustainable food choice by researching sustainability in regards to planet, profit and people.

#### learning goal

- What is a sustainable food choice?

#### success criteria

- Complete the worksheet on considerations on Sustainable Food in regards to people, profit and planet.

#### Inquiry question

- What is a sustainable food choice?

People	Profit	Planet
<ul style="list-style-type: none"> <li>• food from a local producer</li> <li>• just enough food for the recipe so none is wasted</li> <li>• homemade food</li> <li>• eating seasonally (root crops in the fall)</li> </ul>	<ul style="list-style-type: none"> <li>• buy fair trade</li> <li>• food from a local producer</li> <li>• use tap water</li> <li>• grow some of your produce such as micro-greens or vegetables</li> </ul>	<ul style="list-style-type: none"> <li>• food that does not harm the environment such as organic</li> <li>• introduce raw foods into the diet</li> <li>• select fresh foods</li> <li>• reduce or omit the meat</li> </ul>

What have I learned about selecting foods that are sustainable?

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## U2L2A1 | Food wants and needs sort sheet

### overview

In this activity you will begin to think about food and food choice. To activate learning around food, you will start by dividing cards of foods into piles. This activity is to help you distinguish between foods that you need and foods that you want.

### learning goal

- To reflect on food choices in regards to wants and needs.

### success criteria

- Completion of food sort into food needs and food wants.

### Inquiry question

- What is the difference between food needs and food wants?

### Step 1: Explore food wants and needs sort sheet

Using the worksheet located in U2L2P2 cut out and divide the cards into two groups: (this may be done singly or in pairs)

- Foods that they need
- Foods that they don't necessarily need but want

### Step 2: Group Discussion

As a group discuss how you sorted your cards. Consider how different people would define food wants and needs differently. Look at the piles of foods and see if there is anything that stands out...

- Which pile is more costly?
- Which pile creates more waste?
- Which pile is from a local source?

If you have time...

- Regroup the cards into a pile that you think makes the most money.
- Regroup the cards into a pile that you think is best on the environment.
- Regroup the cards into a pile that you should eat. This may link into the Government of Canada website on Eating Well with Canada's Food Guide. [healthycanadians.gc.ca/eating-nutrition/food-guide-aliment/index-eng.php](https://healthycanadians.gc.ca/eating-nutrition/food-guide-aliment/index-eng.php)

As a group discuss your food "needs" verses "wants." Were there foods that you felt were missing? Were there foods that fell into needs but were more wants? What makes a food want verses a food need?

### Step 3: Wrap Up

In your own words define the difference between a food want and a food need. A want is something you would like and a need is something you can't do without.



## U2L2A2 | Eco-Footprint food quiz

### overview

In this activity you will go through five slides on your footprint on the environment in regards to food. This will allow you to know your personal food footprint.

### learning goal

- To understand, what are some of the criteria for a sustainable food choice?

### success criteria

- Be able to interpret their results of a quiz for their eco-footprint on food.

### Inquiry question

- Do I eat sustainably?

1. Go through the first five slides of 'My Eco-Footprint Human Impact on the Environment Quiz' PowerPoint. An eco-footprint is a measure of the amount of natural resources consumed by an individual. Be sure to write down the number on each slide and add it up at the end of the slides.

Included are some points to consider as you go through the slides.

- Question 1 looks at how often you eat meat or other animals? What are some concerns with eating meat? Why would this have an ecological impact?
  - Question 2 is about eating out or fast food. What is the advantage of eating at home?
  - Question 3 looks at how often you eat processed foods. What are the advantages and disadvantages of eating processed foods?
  - Question 4 focuses on buying food that was grown locally or from someone that you knew produced it. Ask the students if they can name anyone that produces food and why this would be important? Why would this have an economical impact?
  - Question 5 introduces the use of bottled water. See if any of the students know where bottled water originates and what some concerns with bottled water? A good resource is the *Story of Bottled Water*. [storyofstuff.org/movies/story-of-bottled-water/](http://storyofstuff.org/movies/story-of-bottled-water/). The video is 8:05 minutes.
2. What conclusions can you draw from your ecological footprint number?

**U2L2A3** | Sustainable food choice

**overview**

This activity will help you discover what are some of the things to consider when making a sustainable food choice by researching sustainability in regards to planet, profit and people.

**learning goal**

- To understand what are some of the criteria for a sustainable food choice?

**success criteria**

- Completion of worksheet.

**Inquiry question**

- What is a sustainable food choice?
1. In small groups you are to complete the worksheet U2L2A3 “What is a sustainable food choice?” Go through the slideshow and then research as a group the answers. There are some handouts that are mentioned in the Sustainable Food Choice PowerPoint that may be of some use. The internet has a wealth of information as well.
  2. Be sure to complete the reflective question at the bottom of the worksheet U2L2A3 “What is a sustainable food choice?”

People	Profit	Planet





Food Facts

# Eat Green: Our everyday food choices affect global warming and the environment

What we eat matters. The food choices we make every day have a big effect on the environment. The good news is

that even small changes in what we buy and eat can add up to real environmental benefits, including fewer toxic chemicals, reduced global warming emissions, and preservation of our ocean resources. Eating “green” can also mean eating fresher, healthier foods while reducing your grocery bill and supporting our farmers.



© Anthony Clark

It’s easy to overlook the environmental impacts of our food because they are spread across all stages of a long process. From farm to fork, food production, processing, and transportation can accumulate enormous amounts of energy, water, and chemicals. We offer the following suggestions to help you and your family make healthy, smart food choices:

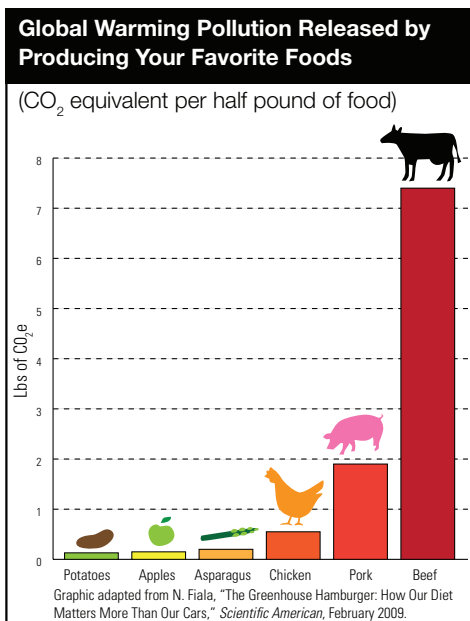
For more information, please contact **Jonathan Kaplan** at (415) 875-6130



www.nrdc.org

February 2010

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## 1. Choose Climate-Friendly Food

Food that comes from high on the food chain or arrives to your plate after extensive processing tends to require more energy and release more global warming pollution into the air.

The “carbon footprint” of hamburger, for example, includes all of the fossil fuels that went into producing the fertilizer and pumping the irrigation water to grow the corn that fed the cow, and may also include emissions that result from converting forest land to grazing land. Meat from ruminant animals (cows, goats, and sheep) has a particularly large carbon footprint because of the methane (a potent global warming gas) released from the animals’ digestion and manure. NRDC estimates that if all Americans eliminated just one quarter-pound serving of beef per week, the reduction in global warming gas emissions would be equivalent to taking four to six million cars off the road.

Seafood can also contribute to significant global warming pollution. Open-ocean fishing fleets depend entirely on dirty fossil fuels, emitting an estimated 130 million tons of CO<sub>2</sub> each year.<sup>1</sup> Highly sought-after large fish stocks like bluefin



**Eat Green:** Our everyday food choices affect global warming and the environment

Learn more! Check out the *OnEarth* magazine online feature story "Graze Anatomy" for a look at the future of the beef industry at <http://www.onearth.org/article/graze-anatomy>

tuna and imported swordfish are more likely to be overfished, resulting in additional sea travel and more global warming pollution. These fish are also high in mercury, which can be harmful to human health.

**What you can do:**

- Eat lower on the food chain by adding more fruits, vegetables, and grains to your diet and limiting your intake of red meat. This can reduce your risk of coronary disease and colorectal cancer, while reducing your grocery bill.<sup>2</sup>
- Choose locally caught, sustainably managed fish or herbivorous farmed stocks like tilapia, catfish, and carp.<sup>3</sup> Seafood lower on the food chain includes clams, mussels and squid. The Monterey Bay Aquarium website has a great guide to safe seafood, available at [www.seafoodwatch.org](http://www.seafoodwatch.org); Blue Ocean's "Fish Phone" can send instant recommendations to your cell phone (<http://www.blueocean.org/fishphone/index.html>).
- Look for fresh foods with the fewest process steps from farm to plate. Freezing, packaging, processing, cooking, and refrigerating food all increase energy use. One study reports that bringing home a frozen bag of carrots has nearly triple the associated global warming pollution relative to purchasing a fresh bunch.<sup>4</sup>

**2. Buy Organic and Other Sustainable Certifications**

Eco-labels like USDA Organic and others give us a way to reward environmental performance in the marketplace. Organic agriculture, for example, is a safer choice for the environment and your family because organic growers don't use synthetic pesticides and fertilizers. Pesticide use degrades air and water quality, while threatening the health of workers, farmers, and communities. Organic agriculture is also often better than conventional agriculture in reducing global warming pollution.

**What you can do**

- Buy organic and other certified foods when you can. Visit the Consumer Reports website at <http://www.greenerchoices.org/eco-labels/> for a review of what labels to look for.

**3. Watch Your Waste**

The USDA estimates that an astonishing 27 percent of all food (by weight) produced for people in the United States is either thrown away or is used for a lower-value purpose, like animal feed. A recent study estimated that the average household wastes 14 percent of its food purchases—a loss of significant value for most families.<sup>5</sup> In addition to the water, energy, pesticides, and global warming pollution that went into producing, packaging, and transporting this discarded food, nearly all of this waste ends up in landfills where it releases even more heat-trapping gas in the form of methane as it decomposes.<sup>6</sup>

**What you can do:**

- Purchase foods that you can consume before they expire to help minimize food waste and shrink your grocery bill.
- Compost your food waste, reducing greenhouse gas emissions and the need for synthetic fertilizer.

**4. Eat Locally**

A typical American meal contains ingredients from five foreign countries, and even domestically grown produce travels an average of 1,500 miles before it is sold.<sup>7</sup> Buying locally can help reduce the pollution and energy use associated from transporting, storing and refrigerating this food—that's especially true for food that is imported by airplane, including perishables such as cherries, blueberries, blackberries, raspberries, tomatoes, bell peppers, and asparagus. In California, which imports food distributed throughout the nation, NRDC estimates that the smog-forming emissions from importing fruits and vegetables are equivalent to the annual emissions from 1.5 million cars.

**What you can do:**

- Choose local food options whenever possible and avoid purchasing food imported by airplane. But keep in mind that the type of food and how it was produced may be of greater environmental significance.

<sup>1</sup> Bijal Trivedi, "What is Your Dinner Doing to the Climate?," *New Scientist*, Sept. 11, 2008, available at: <http://www.newscientist.com>.

<sup>2</sup> Anthony J. McMichael, et. al., "Food, livestock production, energy, climate change, and health," *Lancet* 1253, 1256 (2007), available at: [http://www.eurekalert.org/images/release\\_graphics/pdf/EH5.pdf](http://www.eurekalert.org/images/release_graphics/pdf/EH5.pdf)

<sup>3</sup> See Trivedi, endnote 1

<sup>4</sup> [http://randd.defra.gov.uk/Document.aspx?Document=EVO2007\\_4601\\_FRP.pdf](http://randd.defra.gov.uk/Document.aspx?Document=EVO2007_4601_FRP.pdf)

<sup>5</sup> Jeff Harrison, "Study: Nation Wastes Nearly Half Its Food," *Univ. of Ariz. News*, Nov. 18, 2004, available at: <http://uanews.org/node/10448>.

<sup>6</sup> Andrew Martin, "One Country's Table Scraps, Another Country's Meal," *The New York Times*, May 18, 2008 (citing a 1997 study by the USDA's Economic Research Service, available at: <http://www.ers.usda.gov/Publications/FoodReview/Jan1997/Jan97a.pdf>).

<sup>7</sup> NRDC, "Eat Local: Does Your Food Travel More than You Do?," <http://www.nrdc.org/health/foodmiles/>

# Forget fad diets: sustainable food is healthier and more eco-friendly

If you want to eat in a healthier and more cost-effective way, then follow a sustainable diet of home-grown vegetables and cut down on the meat

**Tess Riley**

Thursday 22 January 2015 11.16 GMT

Now that the frantic period of making and breaking New Year's resolutions is over, we can start taking a more honest look at the year ahead.

The problem with all that resolution malarkey is three-fold. One, ambitious goals are all too easy to make before you have to start actually achieving anything; two, who in their right mind wants to train for a marathon in freezing January anyway; three, cake.

With January comes the calls for fad diets - and with them the long list of things you're no longer meant to eat. But this year it's time to do things a little differently - to ditch the drudge and take up some sustainable food resolutions you're likely to keep for life.

## **Shopping sustainably**

There are a wealth of innovative business models out there that help students say sayonara to supermarkets and salut to the sustainable spread.

When it comes to shopping locally, there's a perception that local food equals expensive food, but that's not often the case. The Food Assembly, for example, enables people around the UK to buy directly from producers, with weekly collection points so customers can meet those who've produced their food.

"I was a little unsure at first," says Food Assembly customer Jamie Ellen from Hackney Wick. "The meat does cost a bit more than the stuff I usually buy. However, I'm now a massive convert - I'm not only eating better, tastier meat, I'm eating less of it (which I'm told by my girlfriend is good for my carbon footprint) and eating lots more vegetables. Overall, I'm spending less and enjoying my meals more."

Beyond fresh, tasty, seasonal food, shopping at farmers' markets or from projects like The Food Assembly and Big Barn tends to mean that you radically cut down on packaging, too. With plastics having made a bad name for themselves where human health is concerned, this can only be a good thing.

## Cutting the meat

According to Ben Williamson, press officer at People for the Ethical Treatment of Animals (Peta), interest in meat-free living has skyrocketed in recent years, with 12% of UK adults now following a vegetarian or vegan diet - and up to 20% for those aged 16-24.

“Whereas previous generations have been brought up addicted to fatty flesh and artery-clogging dairy products,” says Williamson, “today’s health-conscious youngsters are more aware than ever that a plant-based diet is better for our bodies.”

Health aside, Williamson points out that the meat industry has made a name for itself as an eco-no-no, pointing out that the UN has described it as “one of the most significant contributors to the most serious environmental problems, at every scale from local to global”.

For those who know that, realistically, they aren’t going to give up meat, what about at least cutting down? The Meat Free Monday campaign is a good place to start, or you could follow Manchester-based student Toral Dadral’s top tip and take up the 7pm rule:

“Meat’s always been a big thing in our family, and when I suggested that we try to cut down, my parents weren’t up for it,” says Dadral. “Eventually we agreed to try not eating meat before 7pm each day. Now my parents love it and have even bought a juicer to fuel their new-found addiction to carrot juice.”

## Growing gains

If you’ve not tried growing your own produce before, you’re in for a treat. With even a little space, you can turn a small, nondescript space into a flourishing container garden, as this brilliant video from Vertical Veg demonstrates.

For those in colder climes who are keen to get going right away, why not have a go at growing indoors. Start with this article on growing the likes of mung beans and alfalfa sprouts, and this one on how to build your own mini greenhouse at home - extending the growing season in the process.

When growing anything, the most important skill to have is an ability to embrace the wonky. Unusually-shaped veg are one of the brilliant outcomes of non-supermarket food. Indeed, when seeking alternatives to cake, Buzz Lightyear carrots and duck-shaped tomatoes may just do the trick.

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More blogposts

## Topics





## 33 Ways to Eat Environmentally Friendly

If you started using reusable bags exclusively starting at age 25, you could save more than 21,000 plastic bags in your lifetime. Point being: sustainable eating doesn't have to be hard, and it also doesn't have to be all-or-nothing. A single change can make a difference

By Laura Newcomer | Greatist.com Aug. 24, 2012 13 Comments

**Correction Appended: Aug. 27, 2012**

The sustainable food movement is sweeping the country. Farmer's markets, organic produce, genetically modified foods, cage-free eggs — they've all become part of the cultural lingo. While a lot of this conversation focuses around whether organic foods are better for people's health, let's not forget that these trends are also good for the planet. Read on to learn about the 33 environmentally friendly eating habits that are making a difference for our bodies and our earth.

### At the store:

**1. Reuse it.** Bring a reusable bag on your next shopping trip, and you've already helped out the planet. The U.S. alone uses about 100 billion new plastic bags each year, and (brace yourself) this

massive production costs 12 million barrels of oil. Worldwide, only about 1% of plastic bags are recycled — which means that the rest end up in landfills, oceans or elsewhere in the environment. Why does it matter? Plastic bags don't biodegrade, but light exposure can degrade them enough to release toxic polymer particles — most of which end up in the ocean. Approximately 1 million birds and 100,000 turtles and other sea animals die of starvation each year after ingesting discarded plastics and other trash debris, which block their digestive tracts. And public agencies spend millions of dollars on litter clean-up each year. (In case you're wondering, paper bags aren't much better. Each year, 14 million trees are cut down to make paper shopping bags via a process that requires even more energy than the making of plastic bags.)

**2. Strip down.** Look for products with minimal packaging, like unwrapped

produce or meat straight from the deli counter or butcher. Excess packaging is often made out of unsustainable materials and contributes to waste that ends up in landfills. Perhaps the worst culprit is polystyrene (a.k.a. Styrofoam),

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which is a suspected carcinogen and is manufactured through an energy-intensive process that creates hazardous waste and greenhouse gases.

**3. Don't buy the bottle.** Millions of tons of plastic are used to produce billions of plastic water bottles each year. Save money and lessen waste by drinking tap water from a reusable water bottle. Worried about your health? Try a water filter, or take courage from the fact that a lot of bottled water is likely no better than what's on tap.

**4. Shop different.** Choose to give your money to stores that demonstrate care for the planet, both in their company practices and in the food selections they provide. Look for a selection of local and organic foods as well as store practices that limit waste (think doors on the refrigerated sections so that energy isn't wasted, minimal and/or recyclable packaging and a store-wide recycling program).



## U2L2A3 | Sustainable food choice | Article 3

### Produce:

more nutrients — than food shipped across the globe.

6. **Eat more of it.** Eat more produce than any other food category, and you've already made an impact for the planet (not to mention [your body!](#)).
  
  7. **Go organic.** The definition of organic can be a little confusing, but [food labels](#) can help. Certified organic foods are [grown and processed](#) using farming methods that recycle resources and promote [biodiversity](#), without the use of synthetic pesticides, bioengineered genes or petroleum- or sewage-sludge-based fertilizers. (Weird. Who wouldn't want their food grown in sewage sludge?) Though their benefits to the environment have a long-term payoff, organic foods can be pricier — if you're on a budget, find out which foods are most worth [buying organic](#), and limit your organic purchases to the ones that make the biggest impact.
  
  8. **Eat it raw.** Chomp down on a raw carrot instead of boiling or sautéing it, and save energy that would otherwise have been used to power cooking appliances.
  
  9. **Eat in season.** Seasonal nomming allows you to eat locally — and we've already covered how important local purchasing is for the environment. [Check out what's growing nearby right now.](#)
  
  10. **Preserve it.** Want to eat more locally, but love to eat strawberries year-round? Learn how to [preserve](#) fruits and vegetables so you can eat locally grown produce all year long (it's bound to impress Grandma, too).
  
  11. **Grow it.** You don't need to live in the wild to grow your own fruits and veggies. Join a community garden, or, if you're cramped for space, create a [vertical garden](#) right inside your window.
  
  12. **Get some community support.** Not into the idea of growing your own? Consider joining a [CSA](#) (short for community supported agriculture), which allows you to reap the benefits of locally grown produce without getting your hands dirty.
- ### Meat:
13. **Eat less of it.** Industrially farmed meat has the [greatest impact of any food product](#) on the environment. In addition to the tips outlined below, consider making meat less of a staple in your diet. Can't give up the stuff? Try going meat-free for just one day per week (or one meal per week if you're really attached).
  
  14. **You guessed it: buy local.** We've said it before and we're saying it again: buying local is a great way to cut down on the environmental impact of your food. Just imagine how much energy it would take to haul a side of beef from, say, New Zealand, in comparison to transporting it from the local butchershop.
  
  15. **Go organic.** When it comes to meat, the definition of "organic" changes a little. Obviously, chickens aren't grown in the soil, nor are they (we hope!) conventionally grown with pesticides. Rather, [organic livestock must have access to the outdoors and cannot be supplemented with antibiotics or growth hormones.](#)
  
  16. **Be anti-antibiotics.** It's common practice these days to feed growth-producing antibiotics to animals raised for meat, but this results in [health risks](#) for the animals — and, by extension, the [people who eat them.](#)



## U2L2A3 | Sustainable food choice | Article 3

**1. Go out to pasture.** Pasture-raised livestock make less of a [negative environmental impact](#). They're also treated more humanely than their industrially raised counterparts.

### Seafood:

**18. Look for the label.** Figuring out how to buy sustainable seafood is tough: turns out "wild caught" [doesn't necessarily](#) mean it's environmentally friendly, after all, while [some farmed fish are](#). The easiest way to sort through all the confusion is to look for the label of the [Marine Stewardship Council](#), which guarantees that a product has successfully met requirements for sustainability.

**19. Know your fish.** Check out [these guides](#) to figure out which fish are least endangered and most likely to be farmed sustainably, and use them to guide your buying decisions.

**20. Be a patriot.** Buy U.S. caught or farmed fish. It's as close as you can get to buying "local" when you live in a land-locked state, and it also means that the product has had the chance to be reviewed by the Marine Stewardship Council, so you have a better sense of the conditions under which the fish were caught.

**21. Try something new.** Instead of eating the ever-popular Alaskan salmon along with everybody else at the restaurant, expand your diet and distribute your impact by trying different varieties of fish. Check out these

### Dairy:

**1. Be hormone-free.** (Wouldn't *that* have made adolescence easier...) Just as livestock raised for consumption are often pumped full of antibiotics, [dairy cows are often fed artificial hormones](#) to up their milk production. This has big [health impacts](#) for the cows, the people who consume their milk and other dairy products, and the environment ([manure lagoons](#) sure don't sound like a good thing to us). Industrial dairy production is also linked to [massive greenhouse gas emissions](#). Luckily, hormone-free dairy products are readily available.

**2. Surprise! Go local.** As always when buying local, you'll be reducing the distance that food must travel — and the energy it takes to do so — on its way to your plate.

**3. Go organic.** It's [better](#) for the [environment](#) and for [your body](#).

**4. Cut back.** The production of one pound of cheese might produce [upwards of 11 lbs.](#) of [carbon dioxide](#), the primary greenhouse gas emitted by human activities and a big driver of climate change. As with meat, you can quickly lessen your environmental impact simply by [eating less dairy](#). Bonus: eliminating common staples from your diet one or two days a week is a chance to experiment with fun new [recipes](#).

### At a restaurant:

**2. Order from the tap.** Cut down on packaging; ask for tap water instead of bottled. Likewise, save the beer bottle and order on tap.

**3. Eat local.** Just because you're not at the farmer's market doesn't mean the market's bounty isn't available to you. More and [more restaurants](#) are incorporating locally sourced items into their menus.

**4. Don't be afraid to ask.** There's no shame in asking your server or a manager how your food was grown or processed (though it's probably best not to take it to [this extreme](#)).



## U2L2A3 | Sustainable food choice | Article 3

### Eating at home:

21. **Reduce waste.** Use cloth napkins and real plates, bowls and utensils.
  
1. **Turn waste into a resource.** If you've got the inclination and a little bit of free time, give composting a try and turn food scraps into a [resource that keeps on giving](#).
  
2. **Revamp leftovers.** Instead of dumping leftovers in the trash, turn them into [new meals](#). It'll reduce waste and also save on the energy it would have taken to cook a different meal the next day.
  
3. **Double your recipes.** Leftovers will last twice as long, and you'll use less energy than you would if you cooked multiple meals.
  
4. **Cook one local meal per week.** Challenge yourself to cook one meal a week (or month) that is composed completely of local ingredients. Get some friends in on the action and revel in doing something [good for your health](#) and the health of the planet.

*Do you practice any of these habits on a regular basis? Have we missed any? Share your strategies for eating well for the planet in comments!*

**Correction:** *The original version of this story stated that approximately 1 million birds and 100,000 turtles and other sea animals die of starvation each year after ingesting plastic bags, which block their digestive tracts.*

*However, any product that is littered — not just plastic bags — can pose a threat to wildlife. The story has been updated to reflect that fact.*



## Why Food Sustainability Matters and 10 Things You Can Do About It



**M**ost of the food found in the grocery store is the product of an unsustainable food system.

This food is dependent on foreign oil, is destroying soil, contaminates water, has caused disease outbreaks, and may be robbing our grandchildren of the ability to grow food at all.

**It is often said that consumers hold a lot of power, but I believe that to stop being a consumer is even more powerful.** Choosing not to support the industrial food system is the beginning of sustainable eating.

*So what is sustainable eating and how do you do it?*

### Why Food Sustainability Matters and What You Can Do

The more I learn about our food system and how it came to be, the more concerned I am for our children and grandchildren.

#### GROWING CONCERNS:

- Animal products are increasingly raised purely for profit, without regard



## U2L2A3 | Sustainable food choice | Article 4

to proper stewardship or health.

- We are **monocropping**, and the government is subsidizing it.
- Food is transported and processed using large amounts of non-renewable resources.
- Food is being genetically modified, cloned, and patented.

**The problem is that we are separated from the origins of our food.**

So while we may realize that buying organic is important, organic is now just as industrialized as conventional foods.

**You may wonder what little old you can do about all of this.**

*More than you think.*



Photo by [galant](#)

VOTE WITH YOUR FOOD DOLLARS

**What if every time you made a food purchase you could make a difference?** Every dollar spent at a farmer's market is one less dollar supporting the industrialized food system. Every piece of food grown in your own backyard becomes a symbol of freedom.

**The moms who feed their families have more power than they know.**

### What Sustainable Eating Looks Like

We have all been told to "read labels" when we're choosing our foods. That's not bad advice, but **most sustainable foods do not have labels.**

SUSTAINABLE FOODS DON'T NEED LABELS BECAUSE THEY...

- are real foods that our bodies were designed to eat.
- are healthy for us, the soil, and the animals.
- do not harm the environment.
- are humane for both the workers and the animals.



## U2L2A3 | Sustainable food choice | Article 4

- provide a fair wage to the farmer without the use of government subsidies.
- support the local economy instead of large corporations.

**Sustainable food is what people ate for thousands of years, up until 20th century.**



Photo by [oakley originals](#)

### 10 Tips For Sustainable Eating

My journey to sustainable eating hasn't been easy, and it certainly isn't over. Here are ten steps that we have taken to become mindful eaters.

#### 1. LEARN TO COOK.

Without basic cooking knowledge, none of this is possible. Learning to cook your favorite foods using local ingredients can really make all the difference.

#### 2. EAT LOCALLY.

If you care about delicious food, health eating, proper stewardship of the planet, and supporting your local economy then you must [source out local ingredients](#).

#### 3. EAT SEASONALLY.

This goes hand-in-hand with eating locally. Eat root vegetables and hearty greens in the fall and winter. Eat salads, fruit, and tomatoes in the summer. Even milk and eggs are more abundant during certain times of the year.

#### 4. PRESERVE THE HARVEST.

If you eat locally or seasonally then you'll have to learn to preserve the harvest. Try canning, dehydrating, freezing, and lacto-fermentation. Look to Simple Bites for a helpful how-to series later in the season.



**U2L2A3** | Sustainable food choice | Article 4



Photo by [Isimonsa](#)

5. GROW SOMETHING... ANYTHING.

Start with herbs or lettuce. Radishes are really fast and fairly simple. Even if you rent you can [create a container garden](#). Once you catch the gardening bug you will just want to grow more. Simple Organic had [a great article for beginning gardeners](#).

6. GIVE UP STORE BOUGHT CONVENIENCE FOODS AND MAKE YOUR OWN.

You can make your own [taco seasoning](#), [yogurt](#), [chicken stock](#), [pesto](#), [granola](#), [tomato sauce](#)... the list goes on and on. If you buy it from the store, do a quick recipe search and try making it at home.

7. BUY FAIR-TRADE.

When you don't know your farmer because you're buying from a foreign country look for the words "Fair-Trade". [TransFair-USA](#) ensures that farmers are treated justly and paid fairly for their work.

8. KNOW THE COST OF CHEAP FOOD.

Do you ever wonder why some supermarket food is *just so cheap*? You may not pay for it at the cash register, but the cost to your health, the soil, and the environment are there. I rambled about the cost of a nourishing diet not [once](#), but [twice](#). It really is important.

9. EAT ANIMAL PRODUCTS.

I know this may be controversial, but locally grown animal products can be more sustainable than those grains and beans from the bulk bins. I have seen the "organic" bins be filled with bags from China. I know that not everyone feels the same way, but it is my personal belief that locally, biodynamically raised animal products are a better choice than monocropped grains and beans.





**U2L2A3** | Sustainable food choice | Article 4

10. BE WILLING TO GIVE UP CONVENIENCE.

This may be the hardest part of changing the way you eat. On the other hand, it forces you to simplify your food in a way that promotes health and flavor. The simple truth is sustainable food does not outsource its preparation.

**Eating mindfully may take a bit more effort, but the rewards – for your family and their future – are too big to pass up.**

*What do you think defines sustainable eating?*



### About Shannon

Real food, sustainability, and homesteading are inextricably intertwined on the off-grid homestead Shannon, her husband and three children inhabit. She shares the insanely beautiful and shatteringly hard of it all on her blog [Nourishing Days](#). She also works as a content writer and blog editor for [Cultures for Health](#).

**U2L2A3** | Sustainable food choice | Video

OrganiCouncilOntario and Maureen Kirkpatrick. 2011. Sharing the Harves—A Retailer describes why she loves organic by the Organic Council Ontario video:

[www.youtube.com/watch?v=L\\_F18AZIcWA](http://www.youtube.com/watch?v=L_F18AZIcWA)

## U2L2A4 | Sustainable meal menu

### overview

In this activity you will create a menu for a meal using only food that fits the criteria for sustainable food.

### learning goal

- To create a sustainable meal menu.

### success criteria

- To create a sustainable meal menu.

### Inquiry question

- Can I create a sustainable menu?

When creating a meal menu think about what foods are sustainable. Use the activity U2L2A3 “What is a sustainable food choice?” as your starting point. Based on where you live and the time of the year, list a number of foods that are sustainable. From this list, look up recipes that might work in creating your menu.

**U2L2A5** | Article “Debunking sustainable food myths”

**overview**

In this activity you will have complete the handout formatted for the Ontario Secondary School Literacy Practice Reading selection on “Debunking sustainable food myths” by Emma Gilchrist in preparation for the Grade 10 Literacy test. This activity will extend your knowledge of sustainability and food. One of the key inquire question in this article is why is making a food choice my responsibility?

**learning goal**

- To complete multiple choice and short answer question on an article about sustainable food myths.

**success criteria**

- Complete worksheet on article that has short answer and multiple-choice questions.

**Inquiry question**

- Why is making sustainable food choice my responsibility?

**Checklist**

- Briefly scan the entire selection
- Look at the questions before reading it
- Carefully read the entire article
- Reflect on the reason this article was written
- Reflect on the main idea and the supporting details
- Complete the multiple choice and written answers that are included

Article can be located through the Calgary Herald at: [www.canada.com/life/Debunking+sustainable+food+myths/2086662/story.html](http://www.canada.com/life/Debunking+sustainable+food+myths/2086662/story.html)





**U2L2A5** | Article “Debunking sustainable food myths”

**Multiple choice instructions**

**1.1** Compared to forty years ago, what percentage are Americans spending today of their income on food:

- a** 18 per cent
- b** 16 per cent
- c** 9 per cent
- d** 6 per cent

**1.2** Which statement does not support eating locally:

- a** Keeps money in the community
- b** Reduces greenhouse gas emissions
- c** Tends to taste better
- d** Large quantity of cheap food

**1.3** In paragraph five, the best meaning for the word “burgeoning” is:

- a** flourish
- b** snobbish
- c** poor
- d** friendly

**1.4** Which option best describes how the cost of cheap food trickles down is presented?

- a** chronologically
- b** by cause and effect
- c** as a problem and solution
- d** by similarities and differences

**1.5** Which province does this article refer to:

- a** Ontario
- b** Calgary
- c** Alberta
- d** Quebec

**1.6** Select from the list that best describes industrial beef

- a** Hormone free
- b** Finished on corn
- c** Range-fed
- d** Antibiotic free

**1.7** Where is it least likely to find sustainable foods:

- a** Directly from local producers
- b** Health food stores
- c** Farmers markets
- d** Local supermarkets





## Debunking sustainable food myths

BY EMMA GILCHRIST, CALGARY HERALD



There are plenty of local products at farmers' markets that aren't available elsewhere.

Food. It's one of just three basic human needs, yet we're spending a smaller and smaller portion of our income on what we eat.

Forty years ago, Americans spent 18 per cent of their income on food and only five to six per cent of their income on health care, according to David Suzuki's *Green Guide* (Greystone Books, \$19.95). Now Americans spend nine per cent of their income on food (the lowest proportion in the world) and 16 to 18 per cent of their income on health care. Canadian stats portray a similar trend in food spending.

It's with that in mind that we at *The Green Guide* find arguments against the sustainable food movement hard to swallow. And we're not the only ones.

In recent years, Michael Pollan has become a household name with his bestselling books *In Defense of Food* (Penguin, \$18.50) and *The Omnivore's Dilemma* (Penguin, \$20). In the past few months, the documentary *Food Inc.* has revolutionized the way North Americans view their food and the term "localwashing" -- used when a company tries to make their product look local when it's not -- has popped into our dialect.

All you need to do is visit a local farmers' market or catch a glimpse of Calgary's burgeoning Slow Food scene to know the local food movement in our city is alive and well.

Still, some people question the merit of paying more for food just because it's produced close to home or without the use of chemicals, antibiotics and hormones. Here, we address some common questions surrounding sustainable food.

### **What qualifies as sustainable food?**

Food choices are not black and white. Organic isn't always better. Local isn't always better.

"More than anything, it's about starting to pay attention," says Josh Laughren, director of communications at WWF Canada.

The environmental non-profit is launching a nationwide campaign today, called Localicious, which provides Canadians with tools, such as local buying guides, to make more informed choices.

"It's complicated," Laughren says. "People want simple, quick information. We've tried to resist that request for clearcut information."

Instead, WWF is suggesting consumers inform themselves as to what choices are available and to make the choices that work sense for them.

Wade Sirois, a local food proponent and owner of Infuse Catering and Forage: Farm to Fork Foods to Go, has a guideline that works for him: "Buy food you know from people you know."

Of course, that's not always possible when you live in a place like Alberta, but if you choose foods produced in a sustainable way close to home when you can, you're on the right track.

### **Why should I care where my food comes from?**

"There are lots of negative things that should drive you to eat locally, but there are lots of positive things, too," says Sirois.

A lot of top restaurants use local food these days--and it's not because it's in vogue. It's because fresh, local food tends to taste better.



Aside from providing quality, local agriculture preserves important farmland, keeps money in the community—and generally greatly reduces the greenhouse gas emissions related to food production and transportation.

#### **Why does local food cost more?**

"We are not fully understanding our food systems," Sirois says.

To produce large quantities of food cheaply, companies look for economies of scale, using chemicals to control weeds and pests instead of more labour- and space-intensive organic options and often packing animals into very crowded spaces.

The cost of this cheap food trickles down in many ways, including food safety issues (14 Americans die every day as a result of food-borne illness); increased use of antibiotics (more than half of all antibiotics used in North America are fed to livestock and 90 per cent are administered to make animals grow faster, not to treat infections); and water pollution (The U. S. Environmental Protection Agency estimates agriculture is responsible for 70 per cent of the country's water pollution).

"These things have to be important to you in order to get past the price you pay," Sirois says. "We seem to have no problem paying \$50 for Internet each month and \$80, \$90, \$100 for a cellphone each month, so why do we want to pay the least possible for food?"

Indeed, when you head out shopping for clothes, do you look for the cheapest possible jeans?

"We can't seem to make the connection on a broad scale between food and health. Yes, we eat cheaply and poorly, but it adds to this incredible health expenditure on the other end," Sirois says.

All the while, 38 per cent of food for retail sale in Canada is wasted, according to a Statistics Canada report released in June.

"When we look at the cultures that value food the most, they come from a history of scarcity," Sirois says. "It's maybe our abundance that is to blame."

#### **Why is making sustainable food choices my responsibility?**

"Everyone eats. Food is the one thing that is applicable to everyone," Laughren says, explaining why WWF decided to venture into the food arena.



"If we're going to solve our sustainability issues, there's no question we need government to lead and we need business to take leadership, but none of that can happen if consumers don't make these choices as well," Laughren says. "When people lead, leaders follow."

### **We outsource our cars, electronics and call centres. Why not outsource food?**

"It comes down to security. Are you willing to rely on someone else to feed you? The second you control the food of a population, you control the population," Sirois says.

And right now, governments and companies largely have control of our food systems.

Choosing small, local producers enables us to wrest back some of that control, Sirois says.

"I don't think we'll ever reach the day when we'll feed ourselves (entirely) locally, but I think it's important to increase that percentage," he adds.

### **Why shop at a farmers' market when I can get the same products elsewhere for less?**

Sure, some farmers' markets allow vendors to carry food from elsewhere -- which speaks to the importance of diligent label-reading no matter where you are -- but there are plenty of local products at farmers' markets that aren't available elsewhere.

### **Is all Alberta beef the same?**

"The cow has to live three months in Alberta to be called Alberta beef," Sirois says.

"Usually that time is spent in a feedlot. What goes into that animal? How was it raised? And what do we get out of these animals?"

Industrial agriculture works on a pretty simple premise, Sirois says. "(They) try to get as much fat on a cow in a short amount of time and keep the cow alive at the same time."

That can be achieved by feeding cattle corn, linked to a particularly dangerous strain of E. coli.

Alternatively, choose beef that is hormone and antibiotic-free, range-fed and not finished on corn. Get it directly from local producers, at health food stores, farmers' markets and push for it at your local supermarket.

### Resources

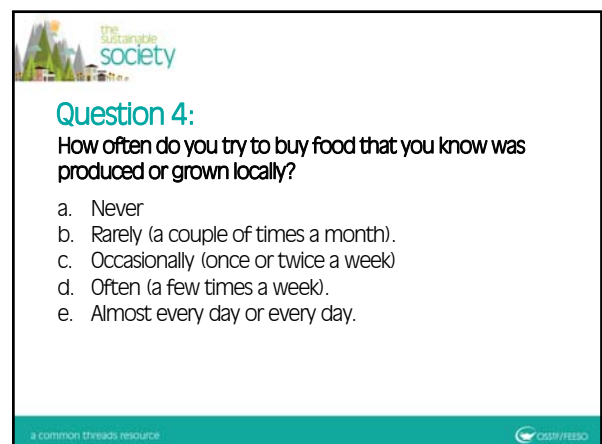
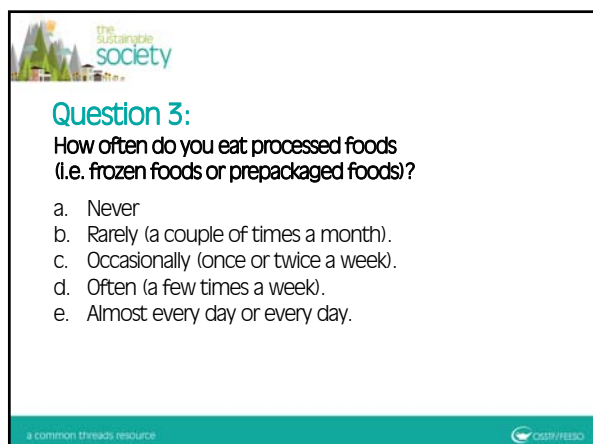
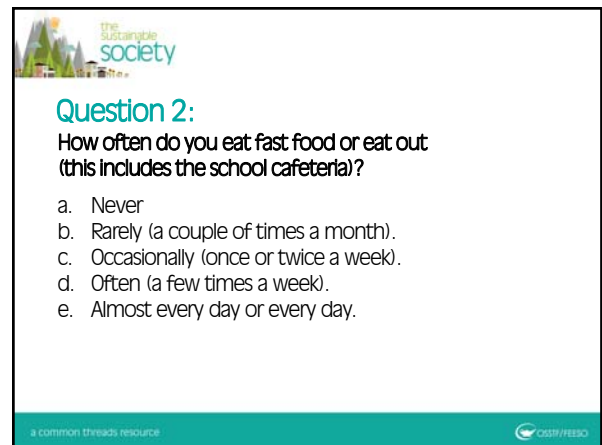
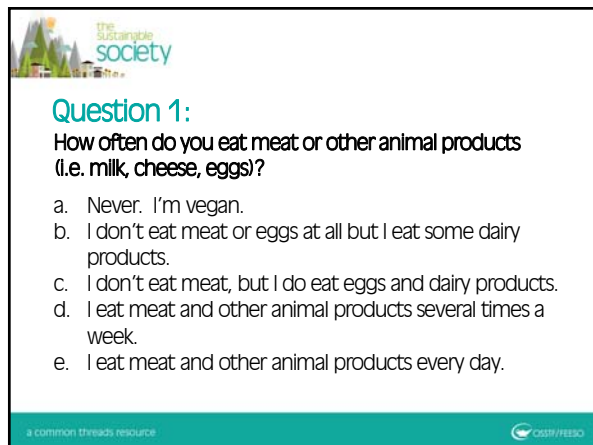
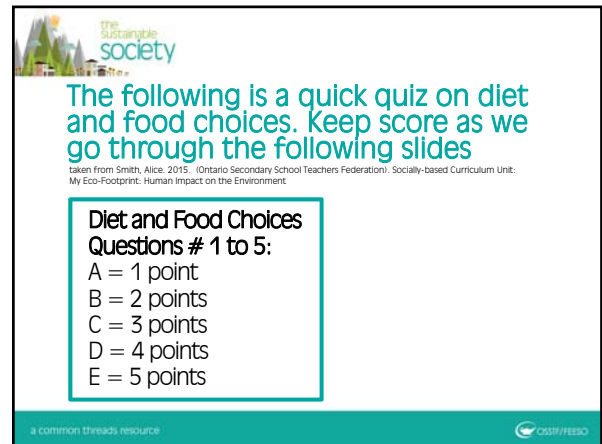
- David Suzuki's Green Guide (Greystone, \$19.95)
- Slow Food Calgary ( [slowfoodcalgary.ca](http://slowfoodcalgary.ca))
- Dine Alberta ( [dinealberta.ca](http://dinealberta.ca))
- WWF Localicious ( [wwf.ca](http://wwf.ca))
- Find a listing of Calgary-area farmers' markets at [calgaryherald.com/greenguide](http://calgaryherald.com/greenguide)

# the sustainable society

## Food want and needs




<b>Bottled Water</b> 	<b>Cheese</b> 	<b>Pop</b> 	<b>Banana</b> 
<b>Chicken</b> 	<b>Egg</b> 	<b>Burger</b> 	<b>Bread</b> 
<b>Cupcake</b> 	<b>Chocolate Bar</b> 	<b>Chips</b> 	<b>Tap Water</b> 
<b>Tomato</b> 	<b>Carrot</b> 	<b>Corn</b> 	<b>Apple</b> 



**Question 5:**  
**How often do you drink bottled water?**

- Never, I use a refillable water bottle.
- Rarely (a couple of times a month).
- Occasionally (once or twice a week).
- Often (almost every day).
- I drink more than one bottle a day.

a common threads resource 

**Wrap up to quiz**  
**Diet and Food Choices**

Questions # 1 to 5:  
 A = 1 point  
 B = 2 points  
 C = 3 points  
 D = 4 points  
 E = 5 points


**THINK, PAIR, SHARE**

- Think about your result.
- Share one thing you learned while going through this exercise.
- What would a sustainable food choice look like?

a common threads resource 

**Explore: Class assignment**

Divide the class into smaller groups and research what is a sustainable food choice. Using the the handout write down what how your food choices affect. (People, Profit and Planet). This powerpoint has a number of articles and ideas to assist the groups as they work through the three areas. Ask that each group have a person that will write down the groups responses and bring it back to the larger group.

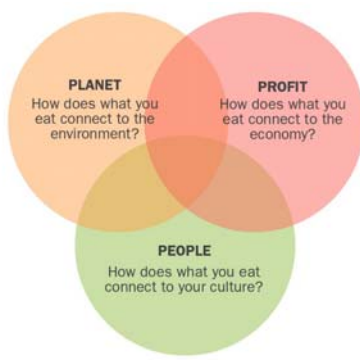
a common threads resource 


**U2L2A3 | Sustainable food choice**

**Overview**  
 This activity will help you discover what are some of the things to consider when making a sustainable food choice by researching sustainability in regards to planet, profit and people.

Planet	Profit	People

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**Planet - Environmental**

- What are the impacts of the food you select on the environment?
- Draw up a list of environmental impacts that you would need to consider from when the food starts at the farm until it ends on your plate.


- Articles
- Forget fad diets: sustainable food is healthier and more eco-friendly by Jess Riley  
<http://www.theguardian.com/education/2015/jan/22/forget-fad-diets-sustainable-food-is-healthier-and-more-eco-friendly>
- Eat Green: Our everyday food choices affect global warming and the environment by Jonathan Kaplan  
[http://www.nrdc.org/globalWarming/files/eatgreenIS\\_feb2010.pdf](http://www.nrdc.org/globalWarming/files/eatgreenIS_feb2010.pdf)


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### Some consideration about your food choice and the planet

- How much energy was used?
- How much water was needed?
- What chemicals were used?
- Where did the seeds come from?
- Food wastage?
- How far does the food travels?
- Type of farming practice: organic, conventional?
- Small verses large scale?



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- What foods do you select based on your culture?
- Write down some of the impacts of your food choice based on your community?




Video Sharing the Harvest – A Retailer describes why she loves organic by the OrganicCouncilOntario video: [www.youtube.com/watch?v=L\\_F18AZIcwA](http://www.youtube.com/watch?v=L_F18AZIcwA)


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### Some considerations about your food choice and the community

- Are your food choices based on your culture?
- Are the foods local food or Imported?
- Any issues around accessing food?
- What are the nutritional implications of your food choice?
- How does it fit into the Canadian Food Guide?
- What are your personal preferences in selecting foods?



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### Profit—Financing your food and its implications

- What are the impacts of the food you select on the economy?
- Draw up a list of financial concerns when it comes to your food choices.
- Articles
  - 35 Ways to Eat Environmentally Friendly by Laura Newcomer [healthland.time.com/2012/08/24/35-ways-to-eat-environmentally-friendly/](http://healthland.time.com/2012/08/24/35-ways-to-eat-environmentally-friendly/)
  - Why Food Sustainability Matters and 10 Things You Can Do About It by Laura [www.simplebites.net/10-tips-for-sustainable-eating/](http://www.simplebites.net/10-tips-for-sustainable-eating/)



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### Some consideration about your food choice and profit

- What are food cost? Who gets the profit?
- Local vs. global grower and distributor.
- Supply and demand of food.
- Is the food subsidized?
- Exchange rates and the cost of food.





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### Sharing

Discuss as a large class the findings on “What is a sustainable food choice? ”

People	Profit	Planet
<ul style="list-style-type: none"> <li>• food from a local producer</li> <li>• just enough food for the recipe so none is wasted</li> <li>• home made food</li> <li>• eating seasonally (root crops in the fall)</li> </ul>	<ul style="list-style-type: none"> <li>• buy fair trade</li> <li>• food from a local producer</li> <li>• use tap water</li> <li>• grow some of your produce such as micro-greens or vegetables</li> </ul>	<ul style="list-style-type: none"> <li>• food that does not harm the environment such as organic</li> <li>• introduce raw foods into the diet</li> <li>• select fresh foods</li> <li>• reduce or omit the meat</li> </ul>

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## Analyze questions

Complete the final question on the worksheet

- What have I learned about selecting foods that are sustainable?



## Sustainable menu activity

Based on where you live and the time of the year, list a number of foods that are sustainable. From this list, look up recipes that would work in creating a sustainable menu.