



## community choices unit three

# ask

What is a sustainable food system?

### acquire

- chart paper and markers OR laptops for students to collaborate using Google docs
- student & teacher handouts
- PowerPoint presentation
- videos
- articles

### explore

- interactive PowerPoint presentation on sustainable food systems

### analyze

- complete the PowerPoint Worksheet on Sustainable Food Systems
- worksheet on 5 Ws and how

### act

- create a sustainable food systems awareness campaign on one particular aspect of the food system



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### U3L5 | Sustainable food systems

This lesson builds on the concepts in sustainable food choice (Unit 2: Individual Choices). It begins with a series of slides by Peter Menzel and Faith D'Alusio called the *Hungry Planet: What the World Eats*. The slides show what different families around the world eat and the cost of feeding their family for a week. The images will allow students to compare and contrast diets, costs, and cultures. Continuing with the PowerPoint, students will become aware of the many facets that are important in the making of a sustainable food system. Students can fill in the PowerPoint worksheet that follows the presentation. The wrap up activity for this unit is for the student to explore one aspect of sustainable food production and complete the five elements of who, what, where, when, why and how in regards to one topic. From this worksheet the group presents some type of awareness campaign such as posters, billboards, announcements, newspaper articles etc.

**subjects:** Geography, Civics, Environmental Science, Economics, Food and Nutrition, Green Industries  
Technology, Travel and Tourism, Hospitality

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

What the world eats | **75 minutes**

**Activity 2**

Student PowerPoint worksheets on sustainable food system

- Topic 1: Food Sustainability is defined and broken down | **10 minutes**
- Topic 2: Carbon footprint of food | **30 minutes**
- Topic 3: Food miles and food calculator | **30 minutes**
- Topic 4: Genetic diversity | **40 minutes**
- Topic 5: Food security and comparison of Canada and Venezuela | **30 minutes**
- Topic 6: Food wastage | **20 minutes**
- Topic 7: Organic methods of food production | **20 minutes**
- Topic 8: Environmental factors | **20 minutes**
- Topic 9: Ethical factors | **20 minutes**
- Topic 10: Food security in a climatic perspective in Norway | **20 minutes**
- Topic 11: Venezuela's national policy on food sovereignty | **20 minutes**
- Topic 12: Canadian food policy | **30 minutes**

**Activity 3**

Consolidation of Sustainable Food Production

5Ws and H and production of awareness campaign | **75 minutes**

**Activity 4**

Sustainable food systems awareness campaign | **150 minutes**

### learning goals

- Participation in discussion about the quantity, types and costs of food around the world.
- To explore the various parts involved with a sustainable food system.
- To be able to identify some examples of grassroots movements.
- To research in depth, one factor in creating a sustainable food system.
- To create an awareness campaign on one aspect of a sustainable food system.

### success criteria

- Participation in discussion about the quantity, types and costs of food around the world.
- Completion of the worksheets that connects to sustainable food systems PowerPoint.
- Completion of the 5 Ws and H worksheet on one aspect of a sustainable food system.
- Creation of an awareness campaign on one aspect of a sustainable food system.



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### U3L5 | Sustainable Food Systems

#### ask

##### Inquiry questions

- What do you notice about how much other countries eat and how much they pay for their food?
- What are the various components making up a sustainable food system?
- Who, what, where, when, why and how does one specific factor (such as food miles) make up a sustainable food system?
- How do you make our food system, sustainable?

#### acquire

##### Activity 1

Sustainable food systems PowerPoint U3L5P1

*Hungry Planet: What the World Eats in One Week* By Peter Menzel and Faith D'Alusio Time.com—  
time.com/8515/hungry-planet-what-the-world-eats

##### Activity 2

Sustainable food systems PowerPoint U3L5P1

Sustainable food systems worksheet U3L5P2 (4 pages)

Internet access

##### Activity 3

Worksheet The 5 Ws and H U3L5A

Internet sites and articles:

- Bain, Jennifer. (2011, Jan. 14). "Food waste: An unappetizing, \$27B problem." Thestar.com Retrieved from [www.thestar.com/life/food\\_wine/2011/01/14/food\\_waste\\_an\\_unappetizing\\_27b\\_problem.html](http://www.thestar.com/life/food_wine/2011/01/14/food_waste_an_unappetizing_27b_problem.html)
- Carus, Felicity. (2010, June 2). UN urges global move to meat and dairy-free diet. The Guardian. Retrieved from [www.theguardian.com/environment/2010/jun/02/un-report-meat-free-diet](http://www.theguardian.com/environment/2010/jun/02/un-report-meat-free-diet)
- FAO Information Division. Text by Hope Shand (1993, October) Harvesting Nature's Diversity. Article: Biodiversity to Nurture people retrieved at [www.fao.org/docrep/004/v1430e/V1430E04.htm](http://www.fao.org/docrep/004/v1430e/V1430E04.htm)
- Food Banks Canada (2014). Food Banks Canada – HungerCount 2014 report on hunger and food bank use. Retrieved From [www.foodbanksCanada.ca/getmedia/7739cdf7-72d5-4cee-85e9-54d456669564/HungerCount\\_2014\\_EN.pdf.aspx?ext=.pdf](http://www.foodbanksCanada.ca/getmedia/7739cdf7-72d5-4cee-85e9-54d456669564/HungerCount_2014_EN.pdf.aspx?ext=.pdf)
- Morgan, Jeremy (2009, June 22) "Low-Cost Subsidized Venezuela State Food Markets Under Spotlight over Price Rises." Latin American Herald Tribune: Caracas, Venezuela. Retrieved from [laht.com/article.asp?CategoryId=10717&ArticleId=344198](http://laht.com/article.asp?CategoryId=10717&ArticleId=344198)
- Norwegian Ministry of Foreign Affairs. (2013, January) "Food Security in a Climate Perspective: A strategy developed in cooperation with Ministry of Agriculture and Food, Ministry of Fisheries and Coastal Affairs, Ministry of the Environment." - English Summary. Retrieved from [www.regjeringen.no/en/dokumenter/summary/id727012](http://www.regjeringen.no/en/dokumenter/summary/id727012)
- Schiavoni, Christina. (2015, March 10) "The Venezuelan Food Sovereignty Experiment" Solutions. Vol 6, No. 5. pp. 46-52 – Retrieved From [www.thesolutionsjournal.com/node/237281](http://www.thesolutionsjournal.com/node/237281)

##### Activity 4

Computers, paper, poster making supplies



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### U3L5 | Sustainable food systems

#### explore

##### Activity 1 | What the world eats

In this activity the PowerPoint created by Peter Menzel and Faith D'Alusio from Time.com. This PowerPoint looks at what a typical family eats in a week and the cost of the food per week in American funds.

##### Activity 2 | Sustainable food systems

What is a sustainable food system? In order to answer this question, an awareness of the various aspects of sustainable food system is helpful. The four page worksheet that accompanies the PowerPoint will assist as you work through the slides. The answer for Canadian Food Policy by Diana Bronson Coming Up with a Canadian Food Policy is at the end of this lesson plan.

#### analyze

##### Activity 3 | 5Ws and How

Provide time and access to computers to explore one aspect of sustainable food system. The goal is to research one aspect using the worksheet 5Ws and How. This worksheet can be found in the student worksheet on sustainable food systems. Print off articles that relate to Sustainable Food System to assist groups. Access to the Internet will help students go beyond the PowerPoint presentation.

Be sure to share with the rest of the class on what you have discovered on each aspect of a sustainable food system. This may be done through presentations, small group discussions or through Google docs.

#### act

##### Activity 4 | Awareness campaign

Ask the students to create an awareness campaign on one of the issues in sustainable food system. An awareness campaign could include posters, billboards, newspaper articles, Ad jingle, radio announcement etc.

Possible extension videos:

- Locally Abundant: Eating Sustainable is a documentary that was created by Jay and George as they travelled across Canada exploring sustainable food. The video is 1:14:13 minutes in length. A voluntary donation is welcomed. [www.youtube.com/watch?v=h7-JpVCLnZk](http://www.youtube.com/watch?v=h7-JpVCLnZk)
- Cowspiracy: The Sustainability Secret is a documentary on animal agriculture and its impact on the environment. The video is 1:30:00 minutes long. Warning there is a scene where an animal is killed and cleaned in preparation for eating. [www.cowspiracy.com/](http://www.cowspiracy.com/)
- Growing Change: A Journey Inside Venezuela's Food Revolution. May be purchased by Green Planet Films. Directed by Simon Cunich in 2011. The video is 60 minutes long. [www.greenplanetfilms.org/product/growing-change-a-journey-inside-venezuelas-food-revolution/](http://www.greenplanetfilms.org/product/growing-change-a-journey-inside-venezuelas-food-revolution/)



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## U3L5 | Sustainable food systems

### reference list

Bain, Jennifer. (2011, Jan. 14). "Food waste: An unappetizing, \$27B problem." Thestar.com Retrieved from [www.thestar.com/life/food\\_wine/2011/01/14/food\\_waste\\_an\\_unappetizing\\_27b\\_problem.html](http://www.thestar.com/life/food_wine/2011/01/14/food_waste_an_unappetizing_27b_problem.html)

Berners-Lee, Mike. 2011. 'How Bad are Bananas? The Carbon Footprint of Everything.' Great Britain : Profile Books Ltd.

Carus, Felicity. (2010, June 2). UN urges global move to meat and dairy-free diet. The Guardian. Retrieved from [www.theguardian.com/environment/2010/jun/02/un-report-meat-free-diet](http://www.theguardian.com/environment/2010/jun/02/un-report-meat-free-diet)

FAO Information Division. Text by Hope Shand ( 1993, October) Harvesting Natures Diversity. Article: Biodiversity to Nurture people retrieved at [www.fao.org/docrep/004/v1430e/V1430E04.htm](http://www.fao.org/docrep/004/v1430e/V1430E04.htm)

Food Banks Canada (2014). Food Banks Canada – HungerCount 2014 report on hunger and food bank use. Retrieved From [www.foodbanksCanada.ca/getmedia/7739cdff-72d5-4cee-85e9-54d456669564/HungerCount\\_2014\\_EN.pdf.aspx?ext=.pdf](http://www.foodbanksCanada.ca/getmedia/7739cdff-72d5-4cee-85e9-54d456669564/HungerCount_2014_EN.pdf.aspx?ext=.pdf)

Koshland Science Museum. (2015). Bird Flu Today Public Awareness Campaign – Teacher's Section. Retrieved from [https://www.koshland-science-museum.org/.../ID\\_BF\\_GroupWorksheet....](https://www.koshland-science-museum.org/.../ID_BF_GroupWorksheet....)

Menzel, Peter and Faith D'Alusio. (2013, Sept. 20,) Hungry Planet: What the World Eats. Retrieved from [time.com/8515/hungry-planet-what-the-world-eats](http://time.com/8515/hungry-planet-what-the-world-eats)

Morgan, Jeremy (2009, June 22) "Low-Cost Subsidized Venezuela State Food Markets Under Spotlight over Price Rises." Latin American Herald Tribune: Caracas, Venezuela. Retrieved from <http://laht.com/article.asp?CategoryId=10717&ArticleId=344198>

Norwegian Ministry of Foreign Affairs. (2013, January) "Food Security in a Climate Perspective: A strategy developed in cooperation with Ministry of Agriculture and Food, Ministry of Fisheries and Coastal Affairs, Ministry of the Environment." - English Summary. Retrieved from [www.regjeringen.no/en/dokumenter/summary/id727012/](http://www.regjeringen.no/en/dokumenter/summary/id727012/)

Schiavoni, Christina. (2015, March 10) "The Venezuelan Food Sovereignty Experiment" Solutions. Vol 6, No. 5. pp. 46-52 – Retrieved From [www.thesolutionsjournal.com/node/237281](http://www.thesolutionsjournal.com/node/237281)

### videos

Bill Nye: Eyes of Nye. (2005) "Genetically modified food" Disney Educational Production: Elk Grove Village, Ill. ISBN 1597530255

Diana Bronson| TEDxConcordia (2012). "Coming Up with a Canadian Food Policy "Canadian Food Policy. Retrieved from [www.youtube.com/watch?v=FmSpD862bgw](http://www.youtube.com/watch?v=FmSpD862bgw)

Food and Agriculture Organization of the United Nations. (2014, Sept. 9). "Food Wastage Footprint 2. Retrieved from [www.youtube.com/watch?v=Md3ddmtja6s](http://www.youtube.com/watch?v=Md3ddmtja6s)

Food Banks Canada. (2014) Hunger Count 2014. Retrieved from [www.foodbanksCanada.ca/HungerCount](http://www.foodbanksCanada.ca/HungerCount)



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## **U3L5** | Sustainable Food Systems

Sustain Ontario. (2014). "Organic Council of Ontario – Organic Production in Ontario" Retrieved from [vimeo.com/36299613](https://vimeo.com/36299613)

USC Canada How we Grow our Food Matters. (2014, June 29.) Banking Diversity. USC Canada Videos: Ottawa. Retrieved from [usc-canada.org/resources/videos](http://usc-canada.org/resources/videos)

### **websites**

Amcglasson. National 5/4 Hospitality – Food Sustainability. (2015. Oct 15.) [www.tes.com/us/teacher-lessons/national-5-4-hospitality-food-sustainability-7513897](http://www.tes.com/us/teacher-lessons/national-5-4-hospitality-food-sustainability-7513897)

ChartsBin statistics collector team 2013, Current Worldwide Annual Meat Consumption per capita, ChartsBin.com, viewed 2nd November, 2015, <and <http://chartsbin.com/view/12730>

The Economist Group. (2015)"Global Food Security Index". The Economist Intelligence Unit Limited: [foodsecurityindex.eiu.com/Country](http://foodsecurityindex.eiu.com/Country)

Foodmiles.com (2013) "The Food Miles Calculator": [www.foodmiles.com](http://www.foodmiles.com)



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### U3L5 | Sustainable food systems

### U3L5A2 | Canadian food policy by Diana Bronson | TEACHER ANSWER KEY Coming up with a Canadian food policy

#### overview

In this activity, you will watch the video *Coming Up with a Canadian Food Policy* and complete the worksheet.

#### learning goal

- To become aware of the Canadian position in regards to food policy from the viewpoint of Diana Bronson.

#### success criteria

- Completion of the handout.

#### Inquiry question

- Do you think that Canada should have a national food policy? Why or why not?

What are the three criteria for changing the Canada's food system for the well being of the planet?

- Be healthier
- Be fairer
- Be more sustainable

#### 1. On the planet

- a There are more over feed people than under feed people.**
- There are less over feed people than under feed people.
- There is the same over feed people as under feed people.
- The number of over feed people is the same as under feed people.

#### 2. The UN defines food security: when all people at all times have access to sufficient, safe, nutritious food, to maintain an active and healthy life.

##### a What is one location in Canada with high food insecurity?

Nunavut

##### b What is one reason that this location has high food insecurity?

Distance food must travel



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### U3L5 | Sustainable Food Systems

#### U3L5A2 | Canadian food policy by Diana Bronson | TEACHER ANSWER KEY Coming up with a Canadian food policy

Fill in some of the changes in how we grow, process, transport, store, sell and eat our food?

1. The number of farms has **declined** and there is an **increase** in the size of the farm.
2. The number of stores has **declined** and there is an **increase** in the surface area.
3. 4 or 5 retailers sell **85%** of our food.
4. 96% of our meat supply is controlled by **four** companies.
5. 75% of the world seed supply is controlled by **10** companies.
6. There is an exploding growth of **local, organic** and **sustainable** food.
7. Roughly **half** of our greenhouse gas emissions are connected to our food system.
8. Canada wastes more than **27 billion dollars** each year. 1/3 of all food is wasted.
9. Canada does not have a **food** policy.

Fill in some of the changes in how we grow, process, transport, store, sell and eat our food?

What are six things you can do:

- think about where your food comes from, grow some yourself
- get to know a farmer
- don't only shop at big stores
- cook and eat good meals with other people
- eat less, mostly vegetables, less sugar, fat and salt
- get engaged in the discussion