

The Organic *Alternative*

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British Columbia Agriculture in the
Classroom Foundation
Summer Institute 1999 Unit Plan
for Culinary Arts 11

Summer Institute 1999 was sponsored by:



Summer Institute for Educators

This document is the result of the author's participation in the BC Agriculture in the Classroom Foundations' Summer Institute for Educators. This third year level course in curriculum design is offered through the University of British Columbia's Office of Continuing Professional Education.

Participants (20 educators from Kindergarten to Grade 12) spend one week at the Montfort House Rural Resource Centre situated on UBC's Farm on Vancouver Island. Here they develop a number of practical teaching strategies for their classrooms using examples drawn from the agricultural, environmental, economic and nutritional concepts featured in the Bc Integrated Resource Packages for their particular grade or subject area.

The agricultural community sponsors participants for the costs of learning resources, tuition, meals and accommodation.

Participants taking the course for credit create teaching modules such as this to share with other educators from around the province.

Applications can be made on the BC AITC web site at www.aitc.ca/bc or directly at the AITC office. Contact Lindsay Babineau at 604-556-3088 for an application form.

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- BC Association of Cattle Feeders
- BC Broiler Hatching Egg Commission
- BC Cattlemen's Association Public Affairs Committee
- BC Chicken Marketing Board
- BC Horticultural Coalition
- BC Institute of Agrologists Okanagan Branch
- BC Milk Producers Association
- BC Turkey Marketing Board
- Canadian Feed Industry Association
- Chilliwack Chamber of Commerce Agriculture Education Committee
- Comox Valley Farmer's Institute
- CIBC, Agriculture Division
- First Heritage Savings Credit
- JR Appel Contracting
- Mainland Dairymen's Association
- Nechako Regional Cattlemen
- North Okanagan Livestock Association
- Royal Bank, Agriculture Division
- Upper North Thompson Livestock Association
- Whitta Farm



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THE ORGANIC ALTERNATIVE

RATIONALE

The purpose of this unit is to nurture an understanding among secondary teachers and their students about making a difference in what sort of food is being served and how it is prepared in a school cafeteria. This unit would apply more specifically to Culinary Arts students in grade 11. Many students and a good majority of teachers, parents and the media think school cafeteria food is synonymous with fat, grease, salt, MSG, pop and malnutrition. Through research and surveys students will come to the conclusion that eating certain types of food can be harmful to them and that the ways foods are grown and processed can make a big difference between eating healthy or becoming a medical statistic. As they go about doing the various exercises that are part of this unit, nutrition will fight malnutrition and the environment will become a friendlier place to live in. Teachers and students involved in the implementation, evaluation and completion of this unit will realize that there are choices. With proper research, surveys, fact-findings and a will to change, a school cafeteria can serve healthy nutritional foods.¹

Goals

- 1) To develop a greater understanding of how organic foods are grown and raised.
- 2) To introduce students to the chain of events from malnutrition to nutritional foods in a safer environment
- 3) To meet the specific Learning Outcomes of the following Integrated Resource

Packages:

- Career and Personal Planning
- Cafeteria Training 11 & 12

In the Cafeteria training 11 and 12 IEP the Learning Outcomes include:

Grade 11-12 Course Description Page 13

- Students gain an understanding of the scientific and aesthetic principles of food preparation, that lead to desired product standards. They apply these principles by adapting recipes to a variety of customer needs.
- Students prepare tasty, attractive, and nutritious foods

Grade 11 prescribed learning outcomes Page 16

- Lead a class discussion on healthy food choices in the school cafeteria. Have students to create and display collages of foods contrasting healthy and unhealthy food choices.
- Accurately identify and describe the principles of nutrition in preparation of food
- When researching cookery principles consider alternatives and choose the appropriate cooking methods. Page 17
- Interview kitchen managers to determine the waste-management procedures used in the establishment. Record how waste is managed and recycled. Page 17
- Comparing a traditional with an organically grown food product students are asked to consider taste, nutrition, cost, and preparation time. Page 18
- Have students analyze how media factors may affect customers' food choices and influence trends. Page 20

Grade 12, Instructional Strategies. Page 24

- Investigate customers' dietary needs such as food allergies, vegetarianism
- Illustrate how dietary and cultural trends influence the availability of special food items.
- Complete nutritional analyses
- Recommend menu alternatives that are nutritionally comparable but healthier and more cost effective. Page 27
- Ask students to evaluate recycling practices and policies in the school and cafeteria. Page 29

Culinary arts 11

CULINARY ARTS 11 A

Credits: 2

THE ORGANIC ALTERNATIVE

Learning guide 4, unit 3

Name: -----

Student #- -----

TA # -----

Out of	Your mark	Teacher's mark	
10			Learning activity 1
10			Learning activity 2
10			Learning activity 3
10			Learning activity 4
10			Learning activity 5
10			Learning activity 6
10			Learning activity 7
10			Learning activity 8
10			Learning activity 9
10			Learning activity 10

EVALUATION

_____% LG#

Date:

NOTE: In order to achieve the following learning guide outcomes with a fair amount of accuracy and objectivity it is recommended that students form a team of three.

LEARNING GUIDE OUTCOMES:

On completion of this unit you will be able to:

1. Define Health & Nutrition in a school cafeteria setting
2. Make a conscious comparison between greasy, unhealthy, non-nutritional cafeteria food and its opposite, low fat, healthy, nutritional food.
3. Research the traditional produce market supplied by a traditional supplier with the produce market available straight from the farm and called "organic".
4. Clearly state what organic foods are and the changes involved when a farmer decides to "go organic".
5. Analyze the pros and cons of traditional and organic farming.
6. Justify the extra costs involved in going organic for the farmer and for the consumer.
7. Relate our state of health with what we eat daily.
8. Explain the "vegetarian phenomena" in our society.
9. Develop and implement a waste control and recycling program in school.
10. Create menus promoting "Natural B.C Cuisine" and estimate the economic impact on the Local and Provincial economy for doing so.

RESOURCES: Cafeteria menus. "From both sides" An investigation of an environmental issue using creative controversy. "Grow BC" a handbook on BC's agriculture. Fish and Food Business. Videos: *Sense of Humus* ID # 93937 and *Growing for the Future*. . A comprehensive list of Lower Mainland Farmers Markets. The "Ram's Horn" a newsletter of food system analysis. Food Value at a glance by Violet G. Plimmer. The organic certification web site: <http://www.gks.com/library/part3.html>. Field trip to the Glen valley organic farm near Fort Langley. List of public "Farmer's Markets". Fraser Valley Farm Fresh products Guide and the Farm Fresh participant farmers. School bus for field trips. Digital camera.

DIRECTIONS TO STUDENTS:

Learning activity #1: Health & Nutrition in a school cafeteria setting

Students are to research and analyze the menu items served in their cafeteria over a one-month period. Nutrition and malnutrition should be taken into consideration while doing this research as well as a reference to Canada's Food Guide to Healthy Eating. Interviewing peer students eating at the school's cafeteria would lead to a more accurate research.

Learning activity #2: Research data on non-nutritional and nutritional foods.

A sensible way of tackling this activity is to create a comparative chart listing protein, fat, carbohydrate, salt, water, fiber, calories and vitamins contents of 10 surveyed items sold regularly in the cafeteria.

Learning activity #3: An analysis of the traditional produce market versus the organic produce market

In order to complete this activity with great accuracy, students should familiarize themselves with the quality, availability and price of produce delivered by a hotel and restaurant supplier. Student should follow the same procedure with the organic produce delivered by the farmer or purchased at the market. After fluency in the matter has been achieved sensible conclusions should be drawn from the research.

Learning activity #4: The organic evolution, what it is and how does a farmer get there?

Using activity #3 as a base, students are to research the factors involved in growing organic foods (local and external). Part of this activity is a field trip to Glen Valley organic farm. Students are to visit the BC Government Internet site regulating the organic certification and find out what sort of legislation is involved in order for a farmer to become "organic".

Learning activity #5: Pro & cons of traditional and organic farming

Students are to conduct a comparative study between traditional and organic farming listing the good and bad of both. Students are to answer and comment on the following questions: What is "Green House Farming and where does it fit in? Is "Green House Farming" a better, safer way of growing produce? How does it compare to organic farming? Part of this activity is a mandatory visit of a Green House Farm.

Learning activity #6: Keeping in mind the freshness and superior quality of produce grown in an organic environment should the extra costs involved in organic agriculture be justified?

Students are to attend one of the local Farmers' Markets and conduct interviews of people attending and buying locally grown foods. A similar survey should be conducted with some local Chefs. A summary of the findings should be presented to class.

Learning activity #7: How does the daily ingestion of food affect our health and wellness?

Using the resources at hand students are to find out the effects of pesticides and chemical fertilizers to our health. Students will also research the public perception and opinion on genetic engineering and irradiation of our food supplies and their possible consequences. Personal comments are expected.

Learning activity #8: The "vegetarian phenomena"

Students will survey their vegetarian peers of both genders and point out what it is that drive them to eating nothing but vegetables. By the same token students will do a class presentation on the various types of vegetarian that they have encountered.

Learning activity #9: Students are to set up a recycling program at their school if none do exist at the present time.

A compost will be set up by the students enrolled in the teaching kitchen program and all the vegetable peelings and cuttings will be collected and brought to the compost. A bail of hay will sit adjacent to the main compost providing the carbon necessary for good composting. In conjunction with other school departments the teaching kitchen will save all used glass, plastic, metal containers, each in its specific recycling bin. Students involved in this program will get CAPP credits.

Learning activity #10: Promote "Natural B.C Cuisine"

After spending all that time doing research and surveys on the source and growing methods of our food supplies students should come to the conclusion that everybody will benefit from a healthy, tasty "Natural B.C Cuisine". To illustrate their findings Culinary Arts Students will create a set of menus reflecting the advantages of using naturally grown B.C foods. These menus will be served on a regular basis at the school cafeteria. Student teams will explain through a class presentation their various views on how the local and provincial economy will be impacted when more food establishments serve "Natural B.C Cuisine".

KEY VOCABULARY

Organic	Cafeteria	Waste control	Fat
Health	Teaching kitchen	Recycling	Protein
Nutrition	Vegetarian	Nutrition	Malnutrition
Carbohydrate	Salt	Water	Fiber
Calories	Vitamins	Green house	Farmers' market
Wellness	Pesticides	Chemical fertilizers	Genetic engineering
Irradiation	Compost	Natural B.C Cuisine	

Response sheet, video: Growing for the future

Student's name:

Rating of video? Excellent ___good___okay___poor___

Reasons for your choice:

What do you understand better now?

How can you apply this information to Culinary Arts?

Response sheet, video: Sense of Humus

Student's name:

Rating of video? Excellent ___ good ___ okay ___ poor ___

Reasons for your choice:

What do you understand better now?

How can you apply this information to Culinary Arts?
