

School Year Gardens

A Toolkit for High Schools to
Grow Food from September to June



Paris Marshall Smith
Arzeena Hamir



Contents

3	Preface
4	Introduction
6	Why Eat Local
8	Starting a School Garden
8	Selecting a Site
9	Selecting the kind of garden
10	Extending the Season
11	Building a School Greenhouse
12	Local Suppliers of Equipment
16	Seasonal Extension Planting Guide
18	Feast Time
19	Harvesting
20	Agriculture in Richmond
21	Community Resources
24	Lesson Plans
25	1. What is a food system?
26	2. What kind of consumer are you?
27	3. Calculate your Foodprint.
28	4. Grow Something
28	5. Working with your palate
29	6. Deconstructing your lunch
30	7. Eat Local
30	8. Get Out! and explore
31	In Closing

Acknowledgments

The Richmond Fruit Tree Project graciously acknowledges major funding support from the United Way of the Lower Mainland's Community Innovation Grant Program.



Special thanks to the following who helped by contributing their donated time, goods and services, funding, expertise and encouragement:

City of Richmond, Brenda Crockett, Mary Gazetas, Joan Glossop, LifeCycles, Richmond High School's Fit For Life class, Alan Turner, UBC- Community Learning Initiative Program, UBC Farm, Vancouver Foundation, West Coast Seeds, Jane Wheeler, "Uncle Joe" Wideski, and all of the many 2007 project volunteers.

Layout Design by Anne Price
www.anne-price.com

© 2007

Richmond Fruit Tree Sharing Project Society

To order a copy of the Toolkit, contact the Richmond Fruit Tree Sharing Project at info@richmondfruittree.com.



Preface

The School Year Gardens Toolkit is one of the results of a larger pilot project entitled “Supporting Seasonal Eating” that was coordinated by the Richmond Fruit Tree Sharing Project (RFSTP) from 2006-2007. The RFTSP is a community-based project located in Richmond, BC that connects volunteers with growing and harvesting fruit and vegetables – for our neighbours in need.

The United Way Community Innovation Grant generously provided funding for this project. In addition, many community groups were involved in making the project a success, most notably Lynn Forrest and her Fit for Life Students at Richmond High School who participated in both classroom and field lessons during the winter and spring of 2007.

Why a Toolkit for High Schools?

The link between schools and gardens is growing in the greater Vancouver area, particularly amongst elementary schools¹. Within high schools though, there is still a need to build on the foundation being offered at the elementary level. It is essential that students’ awareness builds as they become increasingly independent in making decisions about nutrition and patterns of consumption. There is a small window of opportunity that exists with young people to help them make healthy decisions about food and nutrition.

Currently through the ‘Healthy School Initiative’ there are several programmes offered within Richmond high schools, which highlight the importance of nutrition and making healthy choices. Though, while strong in the classroom, few are actively involving students in hands-on training by building a direct connection with food production.²

One exception is the Fit for Life programme designed to support at-risk girls between the ages

of 15-17. Wanting to work with high school students, the Richmond Fruit Tree Sharing Project (RFTSP) chose to link with the Fit for Life programme and support their comprehensive nutrition and fitness curriculum. In recognising that a greenhouse would offer a natural extension to the course objectives, RFTSP partnered with the Fit for Life class at Richmond High School for the pilot of the Supporting Seasonal Eating project.

In evaluating the outcomes of this pilot project and the partnership with the Fit for Life students, the RFTSP strongly recommends the continuation of such programmes as well as the development of a food garden for each school, specifically one that supports seasonal (fall, winter and spring) growing thereby facilitating the limits of the school year.

Purpose

This Toolkit is designed to inspire teachers to grow food in their high schools thereby making the best possible use of school grounds and helping to create an important resource benefiting students, staff and the school community.

This Toolkit can be used to expand food-centred and nutrition awareness projects and to support School Boards to develop new, more expansive, district-wide policies on food security for high school students.



¹ Terra Nova School Yard project is one example from Richmond. The structure of elementary classes and day schedules combined with more extensive community support generally facilitate greater success for gardens at an elementary level.

² www2.sd38.bc.ca/SD%2038%20Policy/500%20-%20STUDENTS/506-G

Introduction

“School food gardens are a simple yet powerful response to the complex health, environmental and educational challenges affecting Canada’s children and youth today. We live in a society that consumes vast quantities of processed convenience food that’s high in fat, sugar and salt. Poor diet, combined with inactivity, has created an epidemic of obesity and related disease – over 26 percent of Canadian children and youth are either overweight or obese. On top of this, more than 1.2 million Canadian children – one child out of every six – lives in poverty, and 10 percent face food deprivation at least once a month. We can do better. We must do better.”¹

According to the Evergreen Foundation, only 0.5 percent of Canada’s 16,000 schools have food gardens – and these are primarily at elementary schools. In contrast, 5 to 10 percent of schools in the UK have food gardens and 30 percent of California schools have them.²

School food gardens not only provide nutritious produce for the students attending the school, research has shown that the gardens are used for teaching activities with 70% of teachers using the gardens twice a week or more for lessons, turning the garden into an outdoor classroom. The Terra Nova Schoolyard Society (TNSS) has embraced the outdoor classroom and now works to connect elementary and high schools with the earth, the community around them, and agriculture at large; while also teaching participants how to organically grow, monitor, harvest and eat nutritiously.³ Working outside in the garden the students, “have an experience that would be impossible to duplicate in the classroom.”⁴ Almost 90% of those surveyed also felt that participating in the gardens also provided an important source of physical activity.⁵

Building on the natural cycles of food production by promoting seed to table and back again (in the form of compost), TNSS encourages students to become more aware of their own interdependence and the role they can play in building healthy food systems. “The seed to table approach is a practical application of sustainability through fun, engaging and hands-on age appropriate activities.” Working with the learning objectives of the school system, a garden can become a valuable stage from which students can build on and apply the lessons of Science, Math, Social Studies, English Language Arts and Social Responsibility.

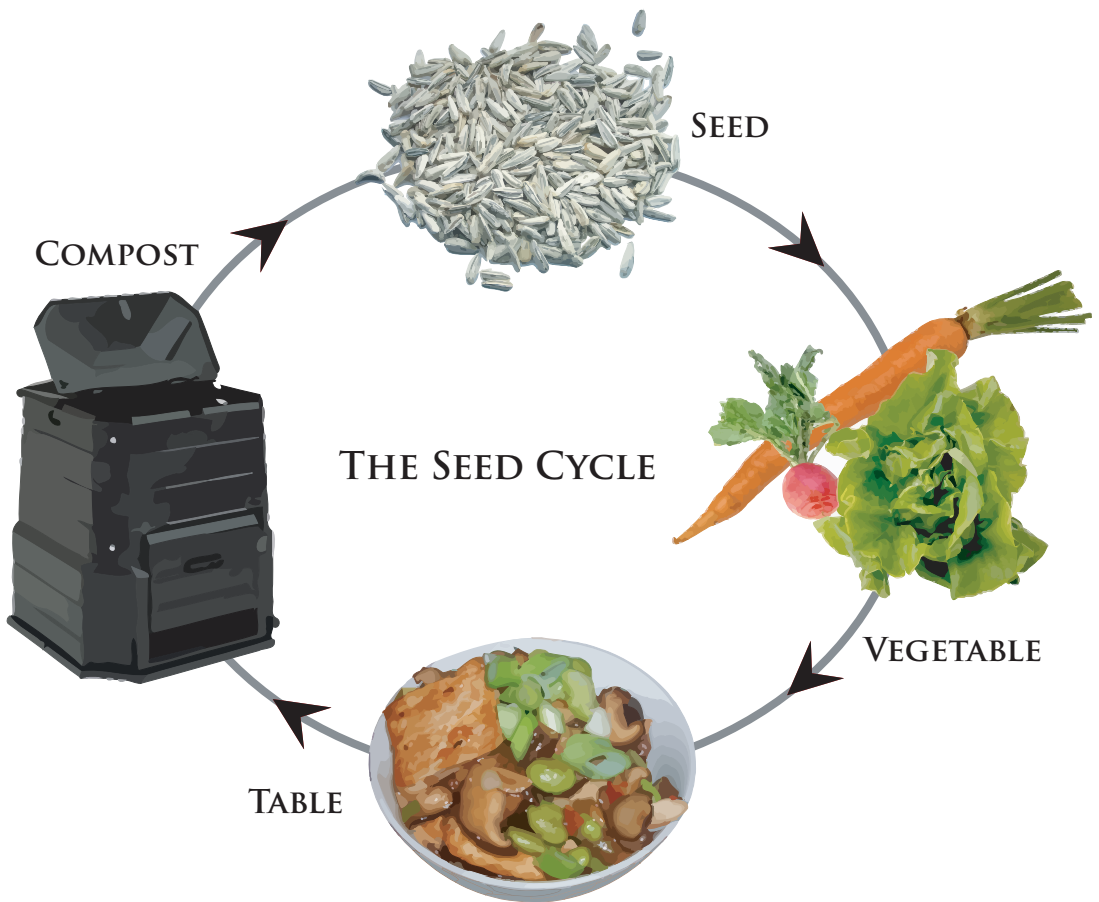
The transformation of school grounds into gardens provides the context for enriching students’ awareness of their place in the world. *“The great challenge of our time is to build and nurture sustainable communities – communities that are designed in such a way that their ways of life, businesses, economies, physical structures, and technologies do not interfere with nature’s inherent ability to sustain life. The first step in this endeavour is to understand the principles of*



1 Growing Healthy Food on Canada’s School Grounds, Evergreen Foundation, March 2006, www.vancouver.ca/commsvcs/socialplanning/initiatives/foodpolicy/tools/pdf/Evergreen_SchoolGdns.pdf, page 3.

2 Ibid. Page 6

3 Ian Lai – Founder and Director of the Terra Nova Schoolyard Project



organization that ecosystems have developed to sustain the web of life. This understanding is what we call ecological literacy.”

Imagine growing greens in the dead of winter and sharing the bounty with a group of eager students. Once harvested, the food from the garden becomes a resource for the kitchen, the next stop in the seed to table cycle. Students have the opportunity to further their garden experience by learning about their taste palates, culturally diverse food preparation techniques, historical methods of food processing (fermentation, canning, pickling), nutrition and food combining

and, of course, the pleasure of eating and working together.

As families become increasingly disconnected from the traditions of food preparation and family meals, it is critical that young people are given the tools to prepare food and to provide good nutrition in their daily lives.

After the meal, the cycle completes itself with a lesson in decomposition: Compost. The waste from the kitchen goes back to the garden to begin forming the foundation for the next cycle of growth.

4 ibid

5 Growing Healthy Food on Canada's School Grounds, Evergreen Foundation, March 2006, www.vancouver.ca/commsvcs/socialplanning/initiatives/foodpolicy/tools/pdf/Evergreen_SchoolGdns.pdf, page 6.

6 www.edibleschoolyard.org/cla_eco.html

Why Eat Local?

The Cost of Our Current Food System

Currently, supermarkets provide Richmond consumers with a cornucopia of food that has been shipped in from around the world. While we enjoy the luxury of eating strawberries in December and apples in June, our food system is unsustainable. Food that is imported has a huge impact on the environment and provides little income to farmers who grow it.

A study cited by the David Suzuki Foundation website estimates that a basic North American meal travels 2,400 km from field to table¹. For each half pound of salad greens consumed locally rather than purchased from California, a local consumer would save almost ½ kg of CO₂ from being released in the air.²

New Zealand is 7,500 miles from British

Columbia and while Okanagan farmers exported \$77 million worth of apples, we imported \$111 million worth of them. Even though New Zealand may be able to produce apples cheaper than local farmers, what is the true cost of eating apples from so far away? A 2001 University of Iowa study found that the average apple traveled 1,726 miles to reach the consumer and released 17 times more CO₂³.

Although the cost of food is beginning to rise in Canada due to increased oil prices, farmers see very little of this money. According to a 2005 study by Canada's National Farmers Union, Canadian farmers receive approximately 6.5 cents from the sale of a box of corn flakes, which retails for \$3.57.⁴

Eating Local Means Eating Seasonally! Means Building Community!

Supporting local producers helps to build a moral economy by creating space where people can develop their awareness around where food comes from and who is producing it. Consumers (those who eat the food) can engage in active discussions with Producers (those who grow and process the food) about social justice, community and environmental issues. Eat-

ing local: trust + producers and consumers = growth of community.

By building community around food, it no longer is seen as a commodity, as a thing, instead, relationships begin to be built with food and those who work with it.

Food is more than a product – there is meaning and value to food.

¹ Nature Challenge, David Suzuki Foundation Newsletter, October 2004, p. 3, www.davidsuzuki.org/prw370829/WOL/Challenge/Newsletter/oct2004_buylocal_page3.asp
² Lifecycles Food Miles Calculator, July 27, 2007, www.lifecyclesproject.ca/initiatives/food_directory/?q=foodmiles/inventory/add
³ The True Cost of Food, Adbusters #55 Sept/Oct 2004, adbusters.org/the_magazine/55/The_True_Cost_of_Food.html
⁴ Global Investor.com, downloaded at www.digitaljournal.com/article/209731/Global_Food_Cost_Rising



The Importance of Local Food

“When you are buying a product that is local, up to 90 per cent of your food dollar is staying in your community. We've got 20,000 farms in B.C. and most of them are small scale sustainable family farms.”¹

Currently, BC Farmers only produce 48% of what is consumed within the province; down

from a 1984 report stating the province was 73% self-reliant.² According to B.C.'s Food Self-Reliance Report, the area of farmland with access to irrigation in B.C. will have to increase by nearly 50 per cent by 2025 to provide a healthy diet for all British Columbians.³

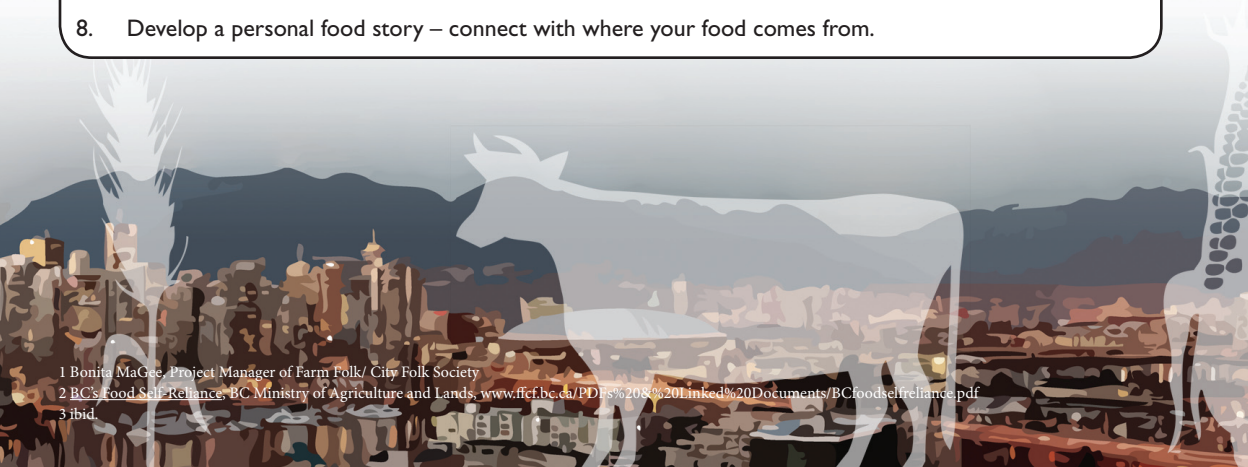
EATING LOCALLY HAS MANY BENEFITS:

1. Freshness and nutritional quality – Food harvested at the height of ripeness has maximum taste and nutrition. Imported food is more likely to be days, if not weeks old. Vitamins, especially vitamin C, degrade quickly as food ages. Local produce is also harvested at full ripeness, as producers don't have to worry about shipping quality.
2. Eating in season is how the system works best. Think about the foods that are eaten in the summer and how they are prepared – ripe, juicy and refreshing foods like watermelon, lettuce, peas, peaches. Raw or steamed, they are good cooling foods to eat when it is hot. Think about the foods that are eaten in the winter and how they are prepared – dense, heavy and nourishing foods like squash, beets or cabbage. Baked or stewed, they are good to eat when the world is slowing down and it is time to warm up.
3. Less reliance on fossil fuels – locally grown food travels less distance and relies less on refrigeration, cutting down the use of fossil fuels.
4. Support of local economy – money spent at local farmers markets and farm gate sales tends to stay within the community. In addition, many of these local farms are small, family-run farms as opposed to the larger factory farms that supply the export industry.
5. Less reliance on waxes, fungicides and fumigants – since local food travels little, the produce does not require the heavy inputs that imported foods do.
6. Help develop community – consumers, who purchase local food, especially directly from farmers, get to know their local producers.
7. Increased food security – as more consumers support local growers, local production will grow to meet demand.
8. Develop a personal food story – connect with where your food comes from.

¹ Bonita MaGee, Project Manager of Farm Folk/ City Folk Society

² BC's Food Self-Reliance, BC Ministry of Agriculture and Lands, www.ffcf.bc.ca/PDFs%20-%20linked%20Documents/BCfoodselfreliance.pdf

³ ibid



Starting a Schoolyard Garden

Before any project can begin, understanding the importance of having a number of stakeholders needs to be established. Often, gardens begin through the dedication and enthusiasm of one specific teacher. If that person changes school or retires, the garden often flounders.

The more people that “buy-in” to the idea, the easier the garden will develop and the more sustainable the garden will be in the long run.

It is highly recommended that once the concept of a food garden is accepted by all interested parties that a 3-5 year commitment is agreed upon. Not only will this allow long-term planning for the garden, it will also increase the possibility of receiving multi-year funding from donors.

Some of the individuals that may need to be consulted include:

- School Principal
- School Board Representative
- Custodial, Landscaping and Grounds keeping Staff
- Cafeteria Staff
- Students
- Parents as well as Parent Advisory Councils (PAC)
- Neighbours of the school

SELECTING THE SITE

Direct Sun

The school grounds will very much dictate what kind of garden can be installed. First and foremost, access to sun is the most important factor. Salad greens, the most shade tolerant food crops, require a minimum of 4 hours of direct sun. Ideally, the site should have 7-8 hours of direct sun in order to grow a wider range of vegetables.

Water

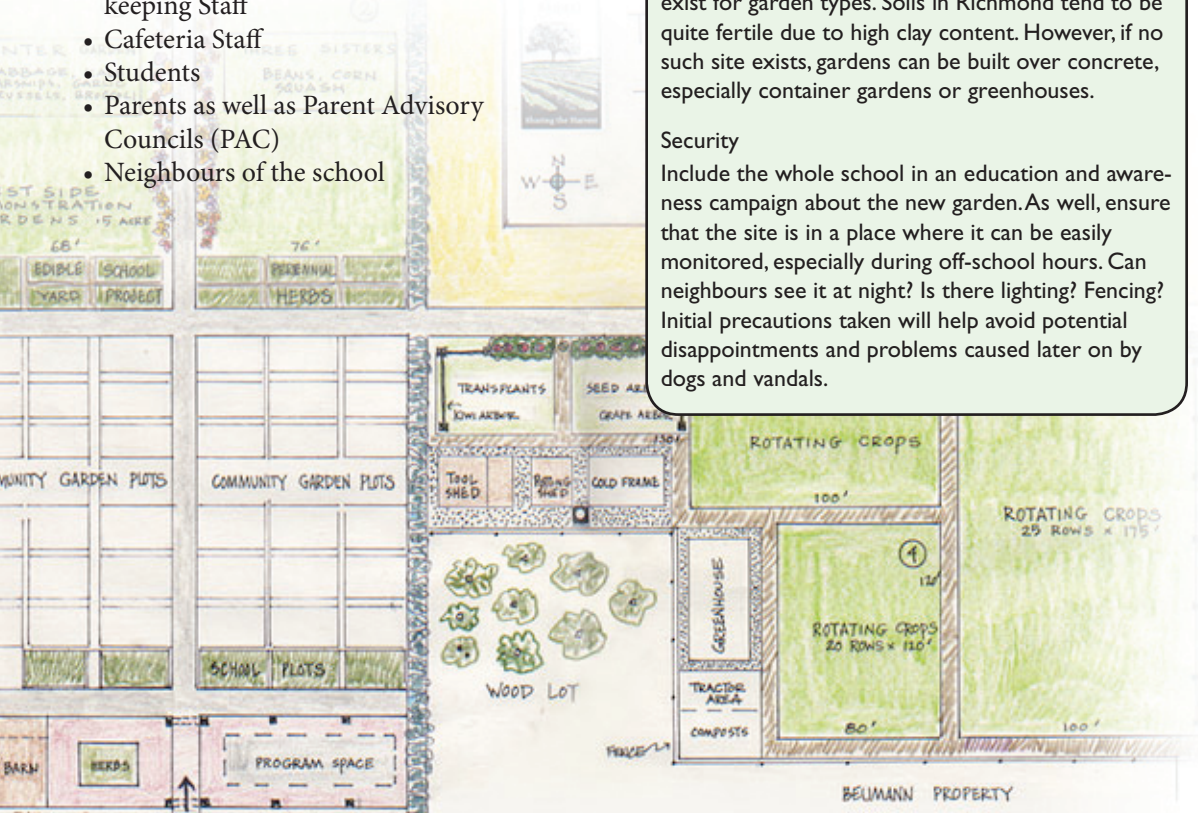
Ideally, a tap should be close by, no more than 1 hose length away. Installing irrigation pipe is extremely expensive and should only be considered if no other option exists to water the garden. Catchments can also be used to harness rainwater during the wet season. Rain barrels can be purchased through the City of Richmond at their Lynas Lane depot.

Soils

If the garden can be built on soil, many more options exist for garden types. Soils in Richmond tend to be quite fertile due to high clay content. However, if no such site exists, gardens can be built over concrete, especially container gardens or greenhouses.

Security

Include the whole school in an education and awareness campaign about the new garden. As well, ensure that the site is in a place where it can be easily monitored, especially during off-school hours. Can neighbours see it at night? Is there lighting? Fencing? Initial precautions taken will help avoid potential disappointments and problems caused later on by dogs and vandals.





Selecting the Kind of Garden

Once the site has been selected, all the stakeholders should be consulted to determine the type of garden to install. All those interested are encouraged to talk to schools with gardens (North Vancouver, Richmond, Vancouver, Coquitlam and Sooke – Edward Milne Community School), visit the Terra Nova Rural Park and explore the Sharing Farm and the Terra Nova Schoolyard Project to see which model may best suit your needs.



School garden, Sooke, BC

- Container gardens are visually appealing, accessible to those with limited mobility and can transform areas covered with asphalt or concrete. This design can be expensive to install and also requires watering twice a day during the hot months.
- Open-ground gardens do give the most flexibility in terms of cost, maintenance, and crop choices, but require careful planning of maintenance during the summer months. They can be made more seasonal by incorporating hoop house structures and the use of cold frames and/or row cover.
- Greenhouses will enable year-round production and as such are potentially more beneficial to schools, but can be initially costly and prone to vandalism.



Queen Alexandria School, Vancouver, BC



Extending the Season

A garden offers opportunities to build community, foster learning and discovery of systems and skills, reconnect people with place and food, encourage localized stewardship and produce food to share with those in need. Seasonal extensions such as a greenhouse, further exceeds these benefits by creating a productive environment during the winter months.

In the greater Vancouver Area – November to April is typically understood as a period of low to little agricultural activity. Greenhouses by design are able to harness the seasonal conditions to make this time productive and abundant. For schools, seasonal growing coincides perfectly with the school year, thereby maximizing educational opportunities and reducing obstacles typically faced around maintenance of gardens during the summer months.

For the purpose of this toolkit, the term ‘greenhouse’ loosely refers to any means that will extend the season by supporting gardening undercover, whether that is an indoor poly or glass-house or simply hoop houses and cloche clothe to provide additional protection.

Definition: Cloche Cloth: (aka row cover or Remay™) A lightweight white fabric cloth that allows water and light to reach plants but that warms the soil and keeps out flying insect pests and protects from frosts. Can be used in combination with hoop houses.

Definition: Cold Frame: A small unheated outdoor structure consisting of a simple wooden frame covered with glass or clear plastic, used for protecting and acclimatizing seedlings and plants. Can be easily made from old windows or skylights placed on top of a simple wooden box.¹

Definition: Hoop House is structure used as a season extender, like an unheated greenhouse and is characterized by a half-round “hoop” shape. Hoop houses are typically constructed of lengths of flexible pipe and plastic covering. Usually tall enough to walk upright.



What's Needed?

1. A location – see “Selecting the Site” for tips on how to choose the ideal spot.
2. A structure to frame the greenhouse – can be wood, plastic piping, the side of a building, bed frames linked together etc...
3. Wrapping to insulate and enclose the space – the easiest is poly (plastic) sheets.

Building a Schoolyard Greenhouse

Remember that a passive (using the natural environment ie. sunlight for light and heat) greenhouse is essentially an enclosed space outdoors. So with a little imagination it can be built inexpensively out of found or cheap materials. As well, the simplicity of the structure means that students can participate in the design and construction of the greenhouse.

As the greenhouse is being designed, other elements to consider are:

- Supplemental heating (heat tape or mats) – to help propagation during the winter
- Irrigation – a greenhouse is enclosed and therefore cannot benefit from natural irrigation. Drip line systems are efficient and can be fed from rain barrels.
- Pest control – pests can easily get out of control in the warm, humid and protective environment of a greenhouse. See below for guidance.
- Ventilation – some sort of air circulation is required to prevent the growth of disease, particularly fungus. During the winter months, when humidity is high, small computer fans used 4-6 times/day @ 15 minutes can be installed to prevent dampening-off of small seedlings.

Designs

These following links can be used to guide the creative design decision-making process:

- Basic greenhouse: sd1new.net/GardenPages/greenhouse.htm
- Lean-to: www.gabrielash.com/products/lean_to_greenhouses.html
- Straw bale and Cob Greenhouse Design www.pendlehill.org/tour/features_greenhouse3.php

Labour Sources

- Students
- Teachers
- Parents
- Other groups: Put out the call to the community. Some groups in Richmond include: Reindeer Army, Coast Capital Youth Team, Rotary/Rotaract groups, Kiwanis, support from RFTSP – check out: www.richmond-fruittree.com

Local Suppliers of Equipment

Wood

One word of caution regarding wood. Although it does last a long time, pressure treated wood is not recommended for use around food gardens. The heavy metals used to preserve the wood can leach into the soil and be taken up by certain plants, especially those in the cucumber/pumpkin family.

Bricks and stone make a much more pleasant looking garden but they are very expensive, require a higher level of skill to install, and can be a source of vandalism.

Cedar is a much better option. Here are a few suppliers:

- Sunbury Cedar 10008 River Road Delta, BC (604) 589-1900
- Rod's Building Supplies Ltd 3471 Moncton Street (604) 277-1191
- Habitat for Humanity's ReStore 69 West 69th Avenue Vancouver

Soil/compost

Sourcing out topsoil needs to be well researched. A much better source of growing medium is the compost available from the City of Vancouver's landfill in Delta. City Farmer in Vancouver and the allotment gardens that run the length of 6th Ave in Kitsilano have been using this compost for years with great success. It contains little in the way of nutrients but will help lighten a heavy clay soil, fill raised beds, and add moisture retention to a sandy area.

The landfill is open 7 days a week, located at 5400 72nd Street, Delta. If the compost is picked-up, a pick-up truckload is approximately \$5. For larger amounts, 11m³ (a dump truck load full) costs just over \$211 for delivery, including taxes.

- City of Vancouver Compost - vancouver.ca/engsvcs/solidwaste/grownatural/citycompost.htm
- Vantro Soils Inc. 6871 No 7 Road (604) 244-0222
- Yardworks Supply Ltd 8720 No. 5 Road (604) 278-4491



Irrigation System

Ideally, the garden/greenhouse will be no more than 1 hose length away from a water outlet. To conserve water, soaker hoses or drip systems that are permanently placed in the beds will allow optimum water use. In addition, they can be hooked up to timers to cut down on time spent holding a hose. Watering cans, hoses, soaker hoses & timers can be purchased at most home renovation stores such as RONA, Home Depot or Home Hardware.

- Lee Valley Tools 1180 Marine Drive SE (604) 261-2262 – Specialize in small-scale drip systems
- University Sprinklers 122 66th Street Delta (604) 421-4555 – For large-scale irrigation connection
- Vancouver Irrigation Supply Ltd. 1440 Venables Street, Vancouver, BC V5L 2G5 Phone: 604-251-2258 – Offers great support for designing small-scale systems

Kohlrabi: (*Brassica oleracea Gongylodes Group*) is a low, stout cultivar of the cabbage that will grow almost anywhere. It has been selected for its swollen, nearly spherical, Sputnik-like shape. The name comes from the German Kohl (“cabbage”) plus Rabi (“turnip”), because the swollen stem resembles the latter. Kohlrabi has been created by artificial selection for lateral meristem growth; its origin in nature is the same as that of cabbage, broccoli, cauliflower, and brussels sprouts: They are all bred from, and the same species as, the wild mustard plant.

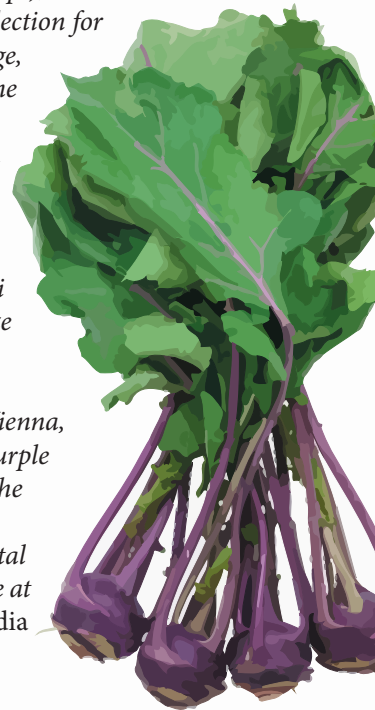
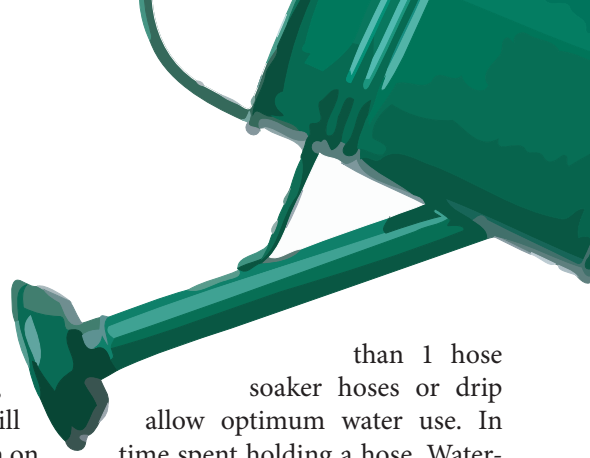
The taste and texture of kohlrabi are similar to those of a broccoli stem or cabbage heart, but milder and sweeter, with a higher ratio of flesh to skin. The young stem in particular can be as crisp and juicy as an apple, although much less sweet. Except for the Gigante cultivar, spring-grown kohlrabi much over 5 cm in size tend to be woody, as do fall-grown kohlrabi much over perhaps 10 cm in size; the Gigante cultivar can achieve great size while remaining of good eating quality.

Kohlrabi can be eaten raw as well as cooked.

There are several varieties commonly available, including White Vienna, Purple Vienna, Grand Duke, Gigante (also known as “Superschmeltz”), Purple Danube, and White Danube. Coloration of the purple types is superficial: the edible parts are all pale yellow.

Hamburg Township, Michigan, USA, has titled itself the “Kohlrabi Capital of the World” and at one time had a kohlrabi festival, which drew 600 people at its peak in 1985.

– Wikipedia





Seed

Seed is most often purchased in garden centres but in order to garden during the school term, it will probably need to be ordered directly from the supplier. Most suppliers will either have a print catalogue and/or on-line ordering system.

If the students and teachers are interested in heritage seeds, a membership in Seeds of Diversity Canada will give the school access to thousands of varieties of seed that are being kept alive by home gardeners across the country. Seeds of Diversity Canada www.seeds.ca

In February of every year, Seedy Saturdays begin selling seed in communities around the Lower Mainland. Seed growers from around the region meet in one spot to allow consumers to purchase seed easily. The Vancouver Seedy Saturday is normally held on the 3rd Saturday of February at Van Dusen Botanical Gardens. www.seedysaturday.ca

Other Seed Suppliers

West Coast Seeds

3925 64th Street, Delta, BC

952-8820

www.westcoastseeds.com

Salt Spring Seeds

Box 444, Ganges P.O. Salt Spring Island, BC

V8K 2W1

www.saltspringseeds.com

Stellar Seeds

S6 C5 RR 1 Sorrento, BC ,V0E 2W0

www.stellarseeds.com/

Environmental Youth Alliance (EYA)

They collect a variety of seeds which are great for our climate - good for food or flower crops, or are plants native to British Columbia.

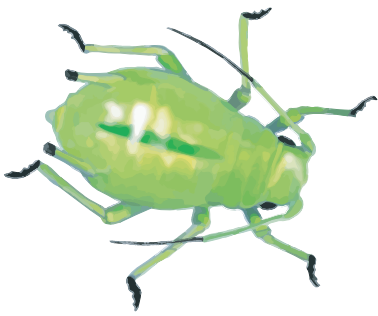
www.eya.ca/index.php?id=66

Seed Starting Equipment

Although seed can easily be started in egg cartons, yoghurt containers and tin foil pie plates, it is often easier to start the seed in seed trays, especially if they require bottom heat and constant supervision. Seed trays can be purchased at West Coast Seeds, Lee Valley Tools (<http://www.leevalley.com>), and most larger garden centres. Make sure to purchase a plastic dome to ensure the potting mix doesn't dry out.

Seed starter mix is a good investment. The peat moss in this type of mix is milled very finely to help even the smallest seed germinate. The mix itself is sterilized to ensure no transmission of pathogens or weed seeds.





Natural Pest Control Products

PEST CONTROL

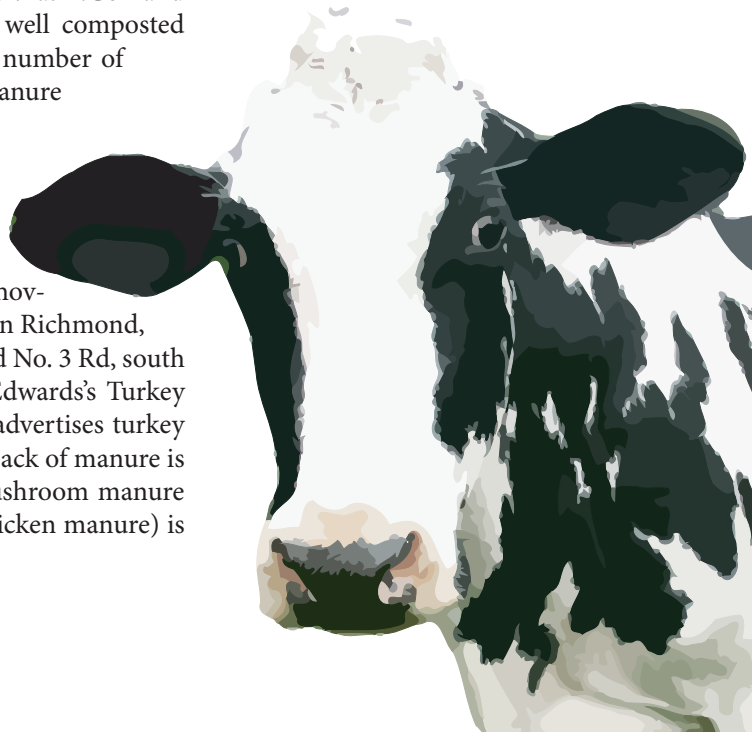
PEST	CONTROL
Aphid	Jet of Water, Garlic Spray, Insecticidal Soap
Slugs	Hand Picking, Copper Strips, Yeast Traps, Iron Phosphate Bait
Cabbage Moth	BT Spray, Floating Row Cover (Remay)
Flea Beetles	Pyrethrin Spray
Powdery Mildew	50% Milk Spray
Weeds	Hand Pulling, Hot Water, Vinegar Spray, Mulching

Food grown on school grounds should not warrant the application of synthetic pesticides. Since the possibility of students eating the food without washing it first is quite high, organic gardening practices are recommended.

Most garden centres and home building supplies such as Home Depot, RONA, Art Knapp's and Home Hardware carry a variety of natural pest control products. They are often sold under brand names such as Safer's, Green Earth, and Scott's Ecosense.

Fertilizers and Soil Amenders

By far, the cheapest source of fertility for a food garden is manure. However, any manure that is used should be at least 2 years old to ensure that E.Coli and other pathogens have died off. Most well composted manure has about 6% nitrogen and a number of essential trace elements. The type of manure chosen depends more on whether or not the manure needs to be delivered versus pick-up and the budget available. Many horse stables, for instance, will allow gardeners to take horse manure for free as long as it is shovelled and hauled away by the receiver. In Richmond, a number of stables exist on Gilbert and No. 3 Rd, south of Steveston Highway. Alternatively, Edwards's Turkey Farm on No 6 Rd, south of Blundell, advertises turkey manure for \$10/yard. The major drawback of manure is the weed seeds that accompany it. Mushroom manure (which is normally well-composted chicken manure) is more reliably weed-free.



Planting Guide

* recommended for growing indoors

PLANT	SOWING DATE	NOTES
Arugula*	August 15-September 15	Holds up reasonably well to rain, should be covered in October
Asian Greens* Giant Mustard, Tendergreen Mustard, Mibuna (winter hardy indoors), Toy Choi, Bok Choi, Gai Lan, Mizuna	August 15-September 15	Can be planted indoors and continuously harvested over the winter
Broccoli Fall/winter	Anytime in June	Rain will probably kill it before the frost does
Purple Sprouting Broccoli Over wintered	July 15-August 1	These are the biennial sprouting broccolis
Brussels Sprouts	June 1-15	Fun to grow and great educational tool – who knew!
Cabbage (for winter)	Anytime in June	
Cauliflower Fall/winter	June 1-30	
Purple Cape and Aalsmeer Over wintered	July 15-August 1	Takes soggy soil somewhat better than sprouting broccoli
Chard* Bright Lights (over wintering) and Perpetual	August - September	Even if the plant dies back, often the crown survives to regrow in the Spring.
Claytonia/Miner's Lettuce*	August 10-25	Fast growing, compact, does well under cover
Corn Salad/Mache	August 20-September 1	Seems to thrive unprotected in rainy wet West Coast winters
Cress, Garden (Upland)	By late August	Biennial plants can be started as early as late spring
Escarole/Endive, Red and Italian Dandelion, Radicchio*	August 1-10	Good cloche clothe candidate, since wetness is more of a problem than cold. Bitterness decreases with frost, and varies from variety to variety.
Favas*	September, October	Sow in late September until early with sowing them in November; they will grow a little even in winter, during any spells when temperatures are above freezing!
Kale* Redbor, improved Siberian, red Russian, Winterbor – very hardy	July 1-15	Needs no protection
Kohlrabi* kolibri, kongo	July 10-20	Can go lower with mulch or under cover and great for indoor growing.
Garlic	September, October	Plant in late September. Basically, if the ground isn't frozen, you can put them in.
Leeks	April-Early May	Big differences between varieties in terms of hardiness and bolting date. This entry reflects experiences with Durabel.

PLANT	SOWING DATE	NOTES
Lettuce* Winter Density, Merveille, Cardinale and Michelle, Continuity, Rouge D'Hiver (cold tolerant)	August - September	Another good greenhouse/cloche candidate and can be successively harvested over the winter
Minutina	August 10-25	Unusual, almost succulent leaves
Mustard* Giant Red and Yellow, Tendergreen	August - September	Hardiness is variable, depending on variety
Onions (most types)	August 10	Most over wintered onions die down in June. Waterlogged winter soils can be a problem for all over wintered onions
Walla Walla sweet	September 1-15	Walla Wallas die down in July.
Scallions	June-September	This applies to Allium cepa types of scallions. A. fistulosum types are much harder and non-bulbing, but also are less tender and hotter in flavour.
Parsnip	July 1-15	It's fun trying to keep these seeds damp until they sprout!
Red and Italian Dandelion, Radicchio	August 1	Leaf types are easier and more reliable. Don't dawdle in sowing this one!
Radishes	Through September	Various rots and soil dwellers spoil mine by midwinter, even though the plants are still alive
Spinach* Bloomsdale or Tye or Skookum	August 1-15	Under a cloche they can be depended on to over winter well.

*Adapted from "westsidegardener.com/quick/winter_veggies.html"
For harvest dates, please refer to the West Coast Seeds catalogue.*



Kai-lan: (Traditional Chinese: Simplified Chinese: Pinyin: jièlán; Cantonese Yale: gaai laan; literally “mustard orchid”), also known as Chinese broccoli or Chinese kale, is a slightly bitter leaf vegetable featuring thick, flat, glossy blue-green leaves with thick stems and a small number of tiny, almost vestigial flower heads similar to those of broccoli. As a group of Brassica oleracea, kai-lan is of the same species of plant as broccoli and kale. Its flavor is very similar to that of broccoli, though not identical, being a bit sweeter.

Kai-lan is eaten widely in Chinese cuisine, and especially in Cantonese cuisine. Common preparations include kai-lan stir-fried with ginger and garlic, and boiled kai-lan served with oyster sauce. Unlike broccoli, where only the flowering parts are normally eaten, with kai-lan the leaves and stems are eaten as well, normally sliced into bits the proper size and shape to be eaten with chopsticks. The names kai-lan and its alternate version, gai-lan, derive from Cantonese.

- Wikipedia

Feast Time!

Enjoy the bounty of all the hard work by sharing a meal with friends and family. If the vegetables are staying with the group, there are some simple ideas about how to include vegetables in any diet located on the RFTSP website. Here are 2 easy recipes to try:

VEGGIE WRAPS

Ingredients:

For this fresh recipe you can use greens from a variety of vegetables – lettuce, spinach, mustard greens, kale or Swiss chard. Use 3-4 leaves per person.

2 cups grated Green or Red Cabbage

1 large Red Pepper sliced thinly

1/2 cup Daikon or Cucumber

1 cup of grated Carrot

Sprouts of choice

2-tablespoons Mint chopped

2-tablespoons Cilantro chopped

1 Mango thinly sliced

Chutney of choice

Directions:

1. Sprouts: Sprouts can either be bought or made at home. To sprout seeds such as mung beans, sunflowers, peas, alfalfa etc...soak the seeds overnight, drain well and then let them sit on the counter for a day. Continue to wash and drain until you see the shoots appear, then eat and store remaining in fridge.
2. Fresh Mix: Grate cabbage, carrot and daikon into a bowl. Mix with limejuice, a pinch of salt and pepper, chopped mint and cilantro. Allow stand minimum of 6 hours to help break down the cabbage.
3. Choose a good size leaf turn so that the spine is facing up and gently squish the spine down.
4. Place a spoonful of your Fresh Mix in the center of the leaf. Top with sprouts, a slice of mango.
5. Gently roll the leaf, tucking the edges in. Once at the top, the rolls can be placed seam down on a plate.

Serve at room temperature with chutney of choice.

CHICKPEA AND GREENS CURRY

Ingredients

1-tablespoon vegetable oil

1 onion, chopped

2 cloves garlic, chopped

1 (14.75 ounce) can coconut milk

1-tablespoon curry paste

Salt and pepper to taste

1 (15 ounce) can chickpea beans, drained and rinsed

1 bunch of fresh greens (spinach, kale, bok choy, chard) washed and stems removed and chopped.

Cilantro

Directions:

1. In a large wok or skillet, heat oil over medium heat; sauté onions until translucent. Stir in garlic and curry paste. Cook, stirring gently until fragrant. Add salt and pepper. Add coconut milk and allow to come to a simmer.
 2. Stir in chickpeas. Add greens and cover. When greens are tender, remove from heat.
- Serve over rice and garnish with cilantro.

Check out the Richmond Youth Services – Just Cook It cooking guide with lots of great tips on how to start up your kitchen, recipes, what spices to use etc...

www.fsgv.ca/programpages/youthservices/cookbookproject-connect/index.html



Harvesting

Be sure to coordinate with a partner kitchen (school cafeteria, community kitchen, church meal programme etc...) before harvesting, so that there is a destination for the crops. If there is not an immediate recipient, plan for cold storage so that the crops are not lost to spoilage (suggestions include the Richmond Food Bank or local community kitchens).

Equipment required:

- Boxes or bags depending on the vegetables
- Knives to make clean cuts
- A scale to measure your success! Always keep good records.

Agriculture in Richmond

In 1974, the Agricultural Land Reserve (ALR) in Richmond protected 5,500 hectares of agricultural land. By 2000, that number had decreased to 4,905, a loss of almost 11% in an area that is supposed to be protected. The number of farms in Richmond has also dropped dramatically. Between 1996-2001, 65 farms stopped producing commercially, a loss of more than 25%.¹

*Definition: ALR: An area set aside for the more-or-less exclusive use of agricultural activity. The ALR system was set up province-wide in the early 1970s on the basis of Canada Land Inventory classification of land suitable for agriculture. The ALR has degraded over the years by wider interpretations of economic and social, not just physical, exclusions.*²

Almost 30% of the farms in Richmond are cranberry farms while hay; blueberries, potato and alfalfa round out the top five crops. Sweet corn, apples, strawberries, squash, pumpkins, zucchini and cabbage are some of the other crops also grown in Richmond.³ With this kind of bounty, it could be easy to assume that food production is not an issue in the city. However, a food assessment conducted in 2006 found just the opposite. Richmond is food insecure.

Definition: Food Security exists when all people, at all times, have physical, social and economic

*access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life.*⁴

*Affordable, locally produced food is not available all year round. The Richmond Food Bank currently supplies almost 800 individuals with supplemental food every week.*⁵ The Richmond Fruit Tree Sharing Project, a non-profit group that grows food for the Richmond Food Bank, donated over 15,000 lbs of fresh fruit and vegetables in 2006.⁶

In addition, due to its reliance on bridges and tunnels for food shipments, Richmond is geographically vulnerable in the instance of a natural disaster or closure of the US border. Studies have shown that there is only 3 days worth of food on supermarket shelves if such an event were to occur⁷

Although the future of food production in Richmond seems bleak, there are a number of reasons for hope. The number of farmers markets in the region has increased – at last count, 17 markets were running regularly between the Sunshine Coast and Mission.⁸ The popularity of the 100 Mile Diet (www.100milediet.org) has caused a surge in interest in eating locally. Plans are already underway to create a 10 Mile Diet tour of Richmond as well as a Local Food Guide.⁹

1 About Agriculture in Richmond, www.richmond.ca/services/planning/agriculture/about.htm

2 openet.ola.bc.ca/geog270/glossary.html

3 *ibid.*

4 FAO. Food security: concepts and measurement. www.fao.org/DOCREP/005/Y4671E/y4671e06.htm

5 Richmond Food Bank Society, www.richmondfoodbank.org/index.shtml

6 Mary Gazetas, Chair of the Richmond Fruit Tree Sharing Project, interview July 2007.

7 Richmond Food Assessment, Coyne and Associates, Ltd., September 2006, www.vch.ca/population/docs/VCH_Richmond_Community_Food_Action_Initiative_Report.pdf

8 Farmers Markets listed on 100milediet.org/wp-content/uploads/2007/06/eatlocalinfo.pdf, July 2007

9 Mary Gazetas, Co-Chair, Richmond Food Security Task Force, interview July 2007.



Community Resources/People

Building Partnerships

- a. **Richmond Fruit Tree Sharing Project:** www.richmondfruittree.com
- b. **Terra Nova Schoolyard Project:** myterranova.ca
- c. **Richmond Poverty Response and Food Security Task Force:**
www.richmondfoodbank.org/prc.shtml
- d. **Community Gardens Richmond – contact Parks @ 604 244-1208**

Websites

Local Food Directory, www.localfooddirectory.ca (The purpose of this website is with the help British Columbians connect with local farmers, producers, and processors of local food and also to educate people about the distance supermarket food travels and the environmental and economic impact these imported foods have along their travels.)

CityFarmer www.cityfarmer.org (Canada's resource database for everything on urban agriculture) **100 Mile Diet, 100milediet.org** (On the first day of spring, 2005, Alisa Smith and James B McKinnon, chose to confront this unsettling statistic with a simple experiment. For one year, they would buy or gather their food and drink from within 100 miles of their apartment in Vancouver, British Columbia.)

Evergreen, www.evergreen.ca, is an innovative charity that explores the relationship between nature, culture and community in urban spaces. Great planting suggestions for native plants and edible food growing.

Lifecycles, www.lifecyclesproject.ca, is a non-profit organization dedicated to cultivating awareness and initiating action around food, health, and urban sustainability in the Greater Victoria community. We work proactively to promote and create personal, shared and community gardens, research, and educational activities and youth skills development programs. Through partnerships we strengthen individual, community and global health.

Center for Eco-Literacy, www.ecoliteracy.org, is a public foundation working with schools and networks that is dedicated to education for sustainable living

Center for Agroecology and Sustainable Food Systems, casfs.ucsc.edu, is a research, education, and public service program at the University of California, Santa Cruz, dedicated to increasing ecological sustainability and social justice in the food and agriculture system.

GreenTeacher, www.greenteacher.com, is a magazine that helps youth educators enhance environmental and global education inside and outside of schools.

FAO, www.fao.org, The Food and Agriculture Organization of the United Nations leads international efforts to defeat hunger. Serving both developed and developing countries, FAO acts as a neutral forum where all nations meet as equals to negotiate agreements and debate policy. FAO is also a source of knowledge and information.

Community Resources/People

Building Partnerships

Websites, continued

Edible School Yard (Berkeley), www.edibleschoolyard.org, A non-profit educational programme located on 1 acre of land on the campus of the Martin Luther King Junior Middle School in Berkeley, California.

Slow Food, www.slowfood.ca, Slow Food believes in recognizing the importance of pleasure connected to food. We should learn to enjoy the vast range of recipes and flavours, recognize the variety of places and people growing and producing food. We should respect the rhythms of the seasons and conviviality

Leopold Centre for Sustainable Agriculture, www.leopold.iastate.edu, is a research and education centre with statewide programs to develop sustainable agricultural practices that are both profitable and conserve natural resources.

Ecological Footprint, www.footprintnetwork.org/index.php is a resource management tool that measures how much land and water area a human population requires to produce the resources it consumes and to absorb its wastes under prevailing technology.

Jamie Oliver, www.jamieoliver.com/schooldinners, so start a revolution in your school and help us prove that school meals can be better. It's all about making radical changes to the school meals system and challenging the junk food culture by showing schools they can serve fresh nutritious meals that kids enjoy eating.

Paul Finkelstein, www.montrealmirror.com/2006/020906/news2.html, has run the superbly named Screaming Avocado café out of the school's converted shop classroom. The students cook, clean, prepare and serve the food as a healthy alternative to the high-grease, high-saturated-fat eats served down the hall in the school cafeteria. What's more, the vegetables are grown and picked from a 3,000-square-foot garden.

Recommended Reading

Gardening Under Cover - A Northwest Guide to Solar Greenhouses, Cold Frames, and Cloches, by William Head.

Growing Vegetables West of the Cascades, by Steve Solomon. This is not strictly a book on winter gardening, but it is an invaluable reference for the year-round vegetable gardener.

Winter Gardening in the Maritime Northwest, by Binda Colebrook. This book has lots of useful information.

Year Round Harvest, by Linda Gilkeson. This book is an excellent resource for seasonal growing.

100-Mile Diet, by Alisa Smith and JB McKinnon

Animal, Vegetable, Miracle, by Barbara Kingsolver

Omnivores Dilemma, by Michael Pollan

Fast Food Nation: The Dark Side of the All-American Meal, by Eric Schlosser

The Art of Common Place, by Wendell Berry

Gardening for the Faint of Heart, by Robin Wheeler



Recommended Viewing

The Sharing Farm, www.richmondfruittree.com

Go Further, www.sphinxproductions.com/pages/film_gofurther.html

The Diggable City, www.diggablecity.org

Black Gold – Wake up and smell the coffee, www.blackgoldmovie.com/

Intervale (Documentary), www.intervale.org/

The Greening of Cuba: A Food First Video, www.foodfirst.org/node/1135

Seeds in the City - The Greening of Havana, www.sounddevelopment.com/globalheroes/seeds/home/index.htm

The Power of Community, www.powerofcommunity.org/cm/index.php www.communitysolutions.org.

Favela Rising, www.favelarising.com/default.php, Trailer: www.favelarising.com/trailer_and_synopsis/index.html

Frankensteer, www.paradigmpictures.com/detail.php?id=30

Global Dimming, www.documentary-film.net/search/video-listings.php?e=4, www.information-clearinghouse.info/article15809.htm

The Venus Theory, www.videoproject.com/ven-902-v.html, www.ses.fi/en/film.asp?id=535

I Know I'm Not Alone, www.iknowimnotalone.com/

www.spearheadvibrations.com/

The Ecological Footprint, www.footprintnetwork.org, Video: www.northcuttprod.com/footprint.html

The Future of Food, www.thefutureoffood.com

The End of Suburbia: Oil Depletion and the Collapse of The American Dream, www.endofsuburbia.com/

The Real Dirt on Farmer John, www.therealdirt.net, www.angelicorganics.com/ao/index.php?option=com_content&task=view&id=148&Itemid=182

Our Daily Bread, www.ourdailybread.at

The Meatrix 1, 2 + 2.5, www.themeatrix.com/

The Gleaners and I (2001), www.rottentomatoes.com/m/gleaners_and_i/

How to Save the World – One Man, One Cow, One Planet, www.howtosavetheworld.co.nz/

Farmfolk/ Cityfolk, DVDs www.ffcf.bc.ca

Seeds in the City: the Greening of Havana

Black Gold

The Gleaners and I

The End of Suburbia: Oil Depletion and the Collapse of the American Dream

Movie Resources

<http://www.bullfrogfilms.com>

www.nfb.ca

<http://www.worldcommunity.ca/desc2006.htm>



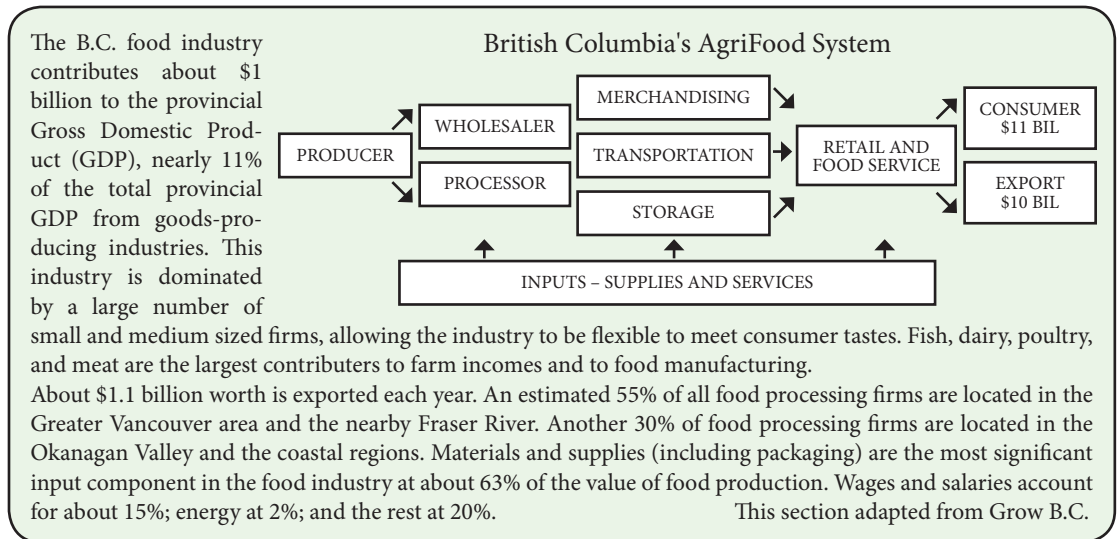
The goal of these lesson ideas is to help students articulate, “What is my Food Story?” and “How do I connect with the meaning and value of food?” by developing a greater awareness of what they are eating and where their food is coming from.

Students should be encouraged to document their experiences, whether individually or as a group. Ideas include journaling, creating a blog, doing a photo essay, creating a film.



What is a food system? 1

Food System: Encompasses the whole range of food production and consumption, including the manufacture of agricultural inputs, farming, food processing, food distribution, food marketing, food retailing, and consumption. Food systems vary in size from local to global. In a local food system, production, processing, and consumption may all take place within one village or even one farm. In a regional food system, production, processing, distribution, and consumption take place between multiple cities, states, or even countries. Increasingly, the agricultural systems of all countries and regions in the world are becoming integrated into one global food system.¹



From "Teacher Gram" produced by the Lifecycles Project.

To see the entire lesson - www.lifecyclesproject.ca/resources/downloads/teacher_gram.pdf

- Using the definitions provided, identify what kind of food system we have – local, regional, global or a combination of all?
- Begin to map your food system
 - * Find a map of your local area and begin by looking at where you get your food.
 - * Can you identify the farms, orchards, ranches, the mills, slaughterhouses, packers, the stores, bakeries, butchers, and fishmongers?
- Is the food you get grown/caught locally? Where is it processed, where is it sold?
- Continue to map your community and identify some favourite non-commercial food sources like berry patches, an old apple tree. Have these places changed since you have grown older?

2 What kind of consumer are you?

From One Peach to Another

"Hi, I'm from Florida, where are you from?"

"Hi, I'm from the Okanagan Valley in British Columbia, Canada. Why do you ask?"

"Well, you're a little expensive, aren't you? What makes you so great, you're just a peach like me?"

"Oh no, not just a peach. I'm a B.C. peach picked fresh this morning, juicy as a watermelon, tasty as can be. What about you, when were you picked?"

"oh, a few days ago. I had a long way to travel. To tell you the truth, I don't feel too well."

"Well, Mr. Florida, I'm surprised that you're so cheap since you've cost the rest of us so much, we've already paid your price in pollution from the trucking it took to get you here. And I can tell from you sallow look that you have lost a lot of your nutrition too."

"I'm still twenty cents cheaper than you are. I bet consumers"

"Not if they're thinking sustainably they won't!"



Think About It

The dialogue between these two peaches illustrates why food consumerism is a sustainability issue. The price of food does not necessarily reflect its true environmental costs (e.g. pollution from transportation), nor its social costs (e.g. undermining of small-scale farmers). What other environmental, or social costs have not been included in this story?

→ The average piece of produce eaten in B.C. has travelled 1400 kilometres. Transportation burns fuel, a non-renewable resource, and creates CO₂, which adds to the greenhouse effect. As much as 50% of the trash that Canadians produce comes from packaging.

→ Buying food has an ecological, social, and economic impact. This is our "ecological footprint". Shopping sustainably will lessen our ecological impact and reduce our footprint.

→ The vitamin and mineral content of our food is dependent on how and where it is grown - the quality of the soil, when the food is harvested, how it is stored and processed, and how far it is transported

→ Local produce is often more expensive than imported produce, which is farmed, processed, transported, and sold all by the same corporation.

From "Teacher Gram" produced by the Lifecycles Project.

To see the entire lesson - www.lifecyclesproject.ca/resources/downloads/teacher_gram.pdf

- Look at the Global Consumer: www.lifecyclesproject.ca/resources/downloads/teacher_gram.pdf
- Begin by looking at the concepts introduced in this lesson.
 - * What is a consumer or a producer?
 - * What are the costs of global consumerism?
 - * What are the benefits?
- Can you find everything you need locally?
- Using a global map, trace our global food system – where do some ingredients (bananas, avocados, rice, olive oil)?
- What about the cultural importance of some foods?
- How do familiar foods bring us security in new places?

Calculate your Foodprint 3

The average Canadian needs 4.27 hectares of land to maintain our consumption patterns, including food consumption. This 4.27 hectares is called our “ecological footprint”. If all people in the world were to use as much land as Canadians, we would need three earths to live on. The act of eating often ties us into systems and resources which go far beyond the farm and our tables. When we eat, we consume a lot more than food: fuel, water, labour...

From “Teacher Gram” produced by the Lifecycles Project.

To see the entire lesson – www.lifecyclesproject.ca/resources/downloads/teacher_gram.pdf

This lesson builds on the concept of the ‘ecological footprint’ (www.earthday.net/footprint) and we recommend that you First calculate your ecological footprint and then apply the same concepts to your food consumption.

- Can you calculate your ‘ecological footprint’? In other words - how many acres are needed to sustain one person’s food needs?
- Over the course of one week keep a record of everything that you eat. At the end of the week calculate how many kilograms of vegetable, meat, grain you consume each day, week, year.
- How many chickens, cows, fish do YOU eat in one year?
- Contact local farmer or West Coast Seeds (3925 64 Street Delta, 604 952-8820 www.west-coastseeds.com) and ask them how much an acre of land in the greater Vancouver area will produce of vegetables, fruit, grain or meat?
- Is this enough for you?



4 Grow Something

- Look at why grow indoors? What are the benefits and constraints?
- What kinds of plants could be grown in a classroom? Take a look at the West Coast Seeds catalogue (included in the Toolkit) or online www.westcoastseeds.com
- Windowsill growing is easy and fun – Try growing salad greens, fava beans, and herbs. Seeds can easily be started in egg cartons, yoghurt containers and tin foil pie plates. Cover with a plastic dome to keep the moisture in.



- How about sprouting seeds to salads? Pea, sunflowers, chick-peas, beans and alfalfa can all be sprouted. To sprout seeds, soak the seeds overnight, drain well and then let them sit on the counter for a day. Continue to wash and drain until you see the shoots appear, then eat and store remaining in fridge.
- Why is it beneficial to sprout seeds before consuming them?
- What are the benefits of eating living plants?

5 Working with your Palate

THROUGH THE EYES OF A TEENAGER

“Ohhh spicy, wow just like wasabi, ummm”

Grade 11 student
Richmond High

“I know Gai Lan, we eat at home all the time, but I didn’t know we could grow it here”

Grade 12 student
Richmond High

“Kohlrabi is such a cool plant, it looks like a alien spaceship and it takes just like broccoli”

Grade 11 student
Richmond High

“You can eat flowers! Wow – Can I grow these at home?”

Grade 11 student
Richmond High

- Organize one class around a meal and have a feast – invite your students to bring in a favourite family dish. Ask them to talk to their parents about traditional recipes, where the food comes from and why the food is eaten this way? Ask them to make it from scratch.
- Before eating, have everyone stand together and ask each student to tell the ‘story’ of their food – what is it called, what are the ingredients, why is it special, does it have cultural significance? Even if it is from the store, try and investigate the ingredients and the tradition behind the dish (e.g. salsa and chips – Mexico, where corn is one of the staple foods)
- Try a new recipe to share with your students using the vegetables from the garden or with a vegetable you have never eaten before.
- Check out the Slow Food Movement www.slowfood.ca for more ideas on how to expand the senses.
- Research traditional methods of preservation – what did people do before electricity and the refrigerator? (Fermentation, canning and pickling)
- How about making some sauerkraut, kombucha, sourdough, or ginger beer?
- Ask students to interview their grandparents about what they ate growing up.

Deconstructing Your Lunch – the 5 N's **6**

Ask students to bring their lunches to class one day. Using a comparative chart begin to analyze the lunches using these 5 categories:

LUNCH ITEM	NEAR	NOW	NUTRITIOUS	NATURAL	NAKED
Sandwich					
Curly Fries					
Yoghurt					
Apple					
Pop					

Is it grown locally? Buying local product eliminates the harm of pollution from transportation. Think about it when you have a choice between buying a pear from China or one closer to home.

Do we need to eat grapes in March? Eating seasonally grown food goes hand in hand with eating locally. Not only do these two choices cut down on transportation pollution, but they support local growers instead of the multinationals that tend to grow our food on the other side of the equator.

Is your food choice good for you? How often do you eat green foods? Foods full of additives, grown in synthetic fertilizer and sprayed with pesticides have lower nutritional value. What is the difference between organic and conventional agriculture?

While you could cook naked, or eat naked, this is more about food packaging! Choose items that have a minimum of packaging - or none at all! If you must buy something wrapped - get the one with the package that can be recycled.¹



Choosing additive and pesticide free food is taking one step towards eating naturally. Eating a food as close to its natural state as possible is another. Processing requires a great deal of energy and contributes to massive energy consumption and industrial pollution. As well processing often requires more additives like oil and sugar. What are the ingredients of your lunch?

7 Eat Local

- The 10-mile diet challenge. In the summer 2007, 12 Richmond residents took on the challenge of eating within a 10-mile radius for 10 days leading up to World Food Day
www.100milediet.org/10-miles-10-days-of-local-eating-in-richmond-2
www.bclocalnews.com/richmondsouthdelta/richmondreview/entertainment/10618976.html
- Organize a local food event in celebration of World Food Day (October)
www.fao.org/wfd2007/index_en.html
- Trace the 100 mile radius of Richmond and working from your Local Food System Map identify local food sources
- Check out www.100milediet.org for more ideas and be sure to keep a diary!

8 Get Out! and explore



- Organize a field trip to a local farm or greenhouse – using your Local Food Map – makes a list.
- Contact the Fruit Tree Project to come out to the Farm/Greenhouse for a workshop
- Work with the Richmond Local Food Guide – check out the Food Security Task Force: www.richmondfoodbank.org/prc
- Encourage students to visit farms on the weekend or take pictures of greenhouses they see in the neighbourhood. Create a collage and add it to your Food System Map

In Closing

“We have lived by the assumption that what was good for us would be good for the world. We have been wrong. We must change our lives, so that it will be possible to live by the contrary assumption that what is good for the world will be good for us... We must recover the sense of the majesty of the creation and the ability to be worshipful in its presence. For it is only on the condition of humility and reverence before the world that our species will be able to remain in it.”

– Wendell Berry



“If we’re to successfully navigate the radical changes ahead, we’re really looking at nothing less than the redesign of our civilization, from the technological to the cultural. We’re going to need big new crops of farmers and a wild diversity of approaches. We’re going to learn again how to be intimately specific to our place. It’s survival of the fittest in the way Darwin meant it: elegantly fitted to time, place, and food supply — able to adapt to changing local conditions and culture. Our true social security is woven in community, which is also what we hunger for as the highly social animals we are. Restoring community is where the dream also lives.”

– Kenny Ausubel¹



Remember that in embarking on this project, you are not alone and your efforts are not insignificant. Many have gone ahead, many walk beside and now many will follow your leadership. There is a growing movement of people recognizing the absolute importance of connecting (young) people to place and in doing so building a strong and resilient community. It is an exciting and worthwhile place to be.

Thank you for your interest and initiative.
Happy Growing!

¹ www.ecoliteracy.org/publications/rsl/kenny_ausubel.html



THIS DOCUMENT HAS BEEN PRINTED GREEN USING RECYCLED PAPER AND NON-TOXIC INKS.
COMPARED TO CONVENTIONAL PRINTING:

0.01 TREES HAVE BEEN PRESERVED FOR THE FUTURE
5.71 GALLONS OF WASTEWATER FLOW WAS SAVED
1.24 LBS OF GREENHOUSE GAS EMISSION WAS PREVENTED

.04 LBS OF WATER-BORNE WASTE WAS NOT CREATED
.63 LBS OF SOLID WASTE WAS NOT GENERATED
0.5K BTUS OF ENERGY WAS NOT CONSUMED