

Vegetable & Fruit Learning Activity



Many people are not aware of where their food comes from or of the benefits of buying locally grown foods; these are important aspects of food literacy. This activity will increase awareness of vegetables and fruit grown in British Columbia as well as the benefits of eating locally grown in terms of the economy, the environment, and freshness.

CURRICULUM CONNECTIONS



BIG IDEAS

- Understanding ourselves and the various aspects of health helps us develop a balanced lifestyle.
- Personal choices and social and environmental factors influence our health and well-being.

CURRICULAR COMPETENCIES

- Describe the impacts of personal choices on health and well-being.
- Identify, apply, and reflect on strategies used to pursue personal healthy-living goals.

CONTENT

- Practices that promote health and well-being, including those that prevent communicable and non-communicable illnesses.
- Sources of health information and support services.
- Food choices to support active lifestyles and overall health.



FIRST PEOPLES PRINCIPLES OF LEARNING FOR ALL STUDENTS

- Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors.
- Learning is holistic, reflexive, reflective, experiential, and relational (focused on connectedness, on reciprocal relationships, and a sense of place).
- Learning involves generational roles and responsibilities.

COMPREHENSIVE SCHOOL HEALTH CONNECTIONS



TEACHING AND LEARNING

- Teach students about the food system from seed to table to waste including growing, preparing and composting food.

COMMUNITY PARTNERSHIPS

- If Farm to School operates in your community, invite a representative into the classroom. The intention of Farm to School programs is to bring healthy, local and sustainable food into schools and provide students with hands-on learning opportunities that foster food literacy. They also seek to strengthen the local food system and enhance school and community connectedness.
- Invite a local farmer that grows food locally and/or plan a field trip to a local farm.
- Seek the support of a Friendship Centre or an Elder partner in the sharing of traditional teachings about plants and model living.

PREPARATION



- Review the *Vegetables and Fruit* section of the *Healthy Eating Overview* (included with this activity).
- Download and review *Plants Grown in BC* and the *Introduction to BC's Agriculture* (Grow BC) resource from BC Agriculture in the Classroom Foundation (www.aitc.ca/bc/bcs_agriculture).
- *Optional:* Display a map of British Columbia in the classroom or an Agricultural map from Grow BC.

IMPLEMENTATION

- Share that for BC First Peoples, traditional food has been a source of sustenance and healing for communities for centuries, not just from a physical sense but also from an emotional, mental and spiritual perspective.
- Brainstorm the impacts of buying locally grown food on the economy, the environment, health, cost, etc. (e.g., it helps support local farmers, which helps our economy; the food travels fewer miles, reducing the carbon footprint, and requiring less chemicals to preserve it which helps the environment; the food is fresher and can taste better, etc.).
- Discuss how you would know if a product is grown in BC.
- Based on this discussion, either have students come up with a list of questions or use the following: Is it a good idea to eat BC grown products? Why? Using these questions, have them interview 3 adults (a one sentence answer to each is enough).
- Divide the students into groups and ask them to share the answers to their interviews. Ask each group to share one answer for each of the questions with the rest of the class.
- Each vegetable and fruit has its own unique story about where and how it is grown, and how it arrives in our homes. Students will research a vegetable or fruit grown in BC and write creative stories about how it grows, how it is harvested, and different methods of processing or preparing it. Encourage students to choose a Traditional food of a local First Nation.
- Have each student choose a vegetable or fruit, assign it a name and a personality.
- Students will research their chosen vegetable or fruit to learn how and where it grows, when it is available in BC how it is harvested, and methods of preparing it.
- Students will then use what they have learned by including it in a creative story about their vegetable or fruit.
- Display the stories on a bulletin board and/or share with the school at an assembly.
- Alternatively, students may choose to write poems or short stories, or create a skit about vegetables and fruit.

EXTENSION OF LEARNING

- *Tasting Parties: BC Grown* (available from: www.actionschoolsbc.ca/resources)
- Farm Visit
- Brainstorm healthy eating choices.
- Have students grow their own vegetable or fruit.
- Have students research growing seasons of various fruits and vegetables within BC (i.e., certain fruits and vegetables are not grown in some locations or require special methods to do so). Identify locally grown produce that is available seasonally.
- In partners, have the students identify and agree upon five healthy food choices. Have students record their ideas and draw the five healthy food choices (e.g., apple, tomato, etc.). Have the students share their pictures with another set of partners and find out if they have drawn the same items or not. Display the student pictures throughout the classroom walls for all students to see.

RECOMMENDED RESOURCES

- HealthLink BC - <https://www.healthlinkbc.ca/healthy-eating> - Call 811 and speak with a registered dietitian
- Health Canada
 - Eating Well with Canada's Food Guide - <http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/index-eng.php>
 - Eating Well with Canada's Food Guide for First Nations, Inuit and Métis (free class sets available) - <http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/fnim-pnim/index-eng.php>
 - Canada's Food Guide: A Resource for Educators and Communicators (F) - <http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/educ-comm/resource-ressource-eng.php>
 - Eat Well and Be Active Educational Toolkit (F) - <http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/educ-comm/toolkit-trousse/index-eng.php>
 - Eat Well Plate - <http://healthycanadians.gc.ca/eating-nutrition/healthy-eating-saine-alimentation/tips-conseils/interactive-tools-outils-interactifs/eat-well-bien-manger-eng.php>
- Half Your Plate (www.halfyourplate.ca)
- BC Agriculture in the Classroom Foundation – Intermediate/Middle Resources (<http://www.aitc.ca/bc/resources/intermediate-resources>)

EDUCATOR BACKGROUNDER

Buying locally grown food has many advantages:

BUYING LOCALLY IS GOOD FOR THE ECONOMY

Dollars spent on locally grown food are reinvested back into the community, which contributes to the growth of small businesses, generates local jobs, raises property values, and leads to strong health care, education, and recreation sectors.

BUYING LOCALLY IS GOOD FOR THE ENVIRONMENT

Food produced and consumed locally has a smaller carbon footprint. It uses less fossil fuel for transportation and requires less material for packaging compared to mainstream food production. Currently, much of the food consumed in North America originates and travels within a food system that is global, not local. This means that for every dollar spent on food, only 20 cents (on average) goes back to the farmer. The rest of the money pays for labour, packaging, transportation, retail, and other costs associated with food production and distribution.

This system of food production creates an economically difficult situation for local farmers. FoodShare Toronto reported that imported produce and lamb travelled more than 5,300 km compared to an average of approximately 100 km for similar locally produced items sold at a farmer's market.

References: Fighting Global Warming at the Farmer's Market: A FoodShare Research in Action Report, Second Edition, April 2005; ThinkLocal.ca; BC Agriculture in the Classroom

OVERVIEW: VEGETABLES AND FRUIT

This section explains why it is important to eat vegetables and fruit.

Information relating to conducting tasting activities with students, food safety considerations, messaging relating to variety and information on produce grown in BC can be found in this section.

Recommended guidelines:

- Make a healthy choice. Fill half your plate with fruits and veggies.
- Children aged 4 to 8 should eat a minimum of 5 food guide servings of vegetables and fruit each day.
- Children and youth aged 9 to 13 should eat a minimum of 6 food guide servings of vegetables and fruit each day.
- Eat one dark green and one orange vegetable each day.
- Choose vegetables and fruit more often than juice.
- Drink water – it's always a great choice.

Why Are They Important?

The Vegetables and Fruit food group is the largest arc in the rainbow on *Canada's Food Guide*, emphasizing the key role these foods play in a healthy eating pattern.

Vegetables and fruit include important nutrients such as carbohydrates (including fibre), vitamins, minerals, and antioxidants. Choosing a wide variety of colourful vegetables and fruit helps to ensure we get all of the nutrients we need.

A diet that includes a wide variety of vegetables and fruit helps children to grow, learn and play. Additionally, this may help reduce the risk of cardiovascular or heart disease and some types of cancer, as well as help to achieve and maintain a healthy weight.

The recommended number of servings is different for people at different stages of life and is different for males and females after age 14. *Canada's Food Guide* recommends a minimum of 5 servings a day of vegetables and fruit for children aged 4 to 8 years and a minimum of 6 per day for children aged 9 to 13 years.

Canada's Food Guide - Eat Well Plate is another resource that helps build healthy meals and encourages making half your plate vegetables and fruit at each meal (<http://www.healthycanadians.gc.ca/alt/pdf/eating-nutrition/healthy-eating-saine-alimentation/tips-conseils/interactive-tools-outils-interactifs/eat-well-bien-manger-eng.pdf>).

Canada's Food Guide has been translated into 12 languages. Visit Health Canada's website to download translated copies. In addition to the translated Food Guides, Canada also has a *First Nations, Inuit and Métis Food Guide*. The "My Food Guide" tool on the Health Canada website allows individuals to create a personalized food guide using the foods that are part of their eating pattern. You can choose to print this tool in either English or French.

References:

- *Eating Well with Canada's Food Guide* (<http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/index-eng.php>)
- *Health Canada's The Eat Well Plate* (<http://www.healthycanadians.gc.ca/eating-nutrition/healthy-eating-saine-alimentation/tips-conseils/interactive-tools-ouils-interactifs/eat-well-bien-manger-eng.php>)
- Canadian Paediatric Society (<http://www.cps.ca>)
- Dietitians of Canada (<http://www.dietitians.ca/>)

What Is a Vegetable?

Vegetable is not a botanical term, but rather a culinary term which generally refers to any edible part of a plant that is not regarded as a fruit, nut, herb, spice, or grain. Vegetables can include leaves (lettuce), stems (asparagus), roots (carrots), tubers (potatoes), flowers (broccoli), bulbs (garlic), and seeds (peas and beans). Some botanical fruit such as cucumbers, squash, pumpkins, tomatoes, and sweet peppers are usually referred to as vegetables.

What Is a Fruit?

In botany, a fruit is the ripened seed-bearing part of a flowering plant. In cuisine when discussing fruit as food, the term usually refers to just those plant fruits that are sweet and fleshy (e.g., plums, apples, and oranges). Many foods are botanically fruit but are treated as vegetables in cooking. These include cucurbits (e.g., squash, pumpkins, and cucumbers), tomatoes, peas, beans, corn, eggplants, and peppers.

Vegetable and Fruit Tasting

Repeated exposure to food, including seeing, smelling, and touching new food, and preparation and tasting, is the most effective way to influence a child's eating behaviours. See the *Action Schools! BC Extension Activities*, available at www.actionschoolsbc.ca for great ways to conduct tasting activities with students.

- The objective of a tasting party is to have students sample a vegetable or fruit – not to provide a full serving to each student.
- Children may be more willing to try new types of food with their peers. Providing a relaxed setting without forcing them to try new foods helps to build a healthy relationship with food.
- Fresh vegetables and fruit work best for tasting activities. Choose local vegetables and fruit that are in season when possible. If fresh vegetables and fruit are not available, try dried fruit with no added sugar; frozen vegetables and fruit with no added salt or sugar; or canned vegetables and fruit in water, juice, or light syrup (has added sugar).
- See the *Food Safety Considerations* information for important reminders about food safety when conducting tasting activities with students.

Name of vegetable or fruit: _____

I've tried this vegetable or fruit _____ times.

	Description	
Taste		
Texture		
Appearance		

- Visit Healthy Schools BC for programs and supports that may be available to your school to support healthy eating, including providing grants or fruits and vegetables directly (www.healthyschoolsbc.ca).
- Using *Food Tasting Chart* (available at www.actionschoolsbc.ca/resources) allows students to reflect on what they are tasting, use their senses, and develop their vocabulary.

Buying Locally Grown Food Has Many Advantages

Whether it is purchasing the produce for your Tasting Party or teaching students about the food system, it is important to highlight the benefits of growing and/or purchasing local food.

Buying Locally Is Good for the Economy

Dollars spent on locally grown food are reinvested back into the community, which contributes to the growth of small businesses, generates local jobs, raises property values, and leads to strong health care, education, and recreation sectors.

Buying Locally Is Good for the Environment

Food produced and consumed locally has a smaller carbon footprint. It uses less fossil fuel for transportation and requires less material for packaging compared to mainstream food production.

References

- *Fighting Global Warming at the Farmer's Market: A FoodShare Research in Action Report*, Second Edition, April 2005 (http://foodshare.net/custom/uploads/2015/11/Fighting_Global_Warming_at_the_Farmers_Market.pdf)
- BC Agriculture in the Classroom (www.aitc.ca/bc/)

Recommended Resources

- Healthy Families BC (www.healthyfamiliesbc.ca/eating)
- HealthLink BC – Healthy Eating (www.healthlinkbc.ca/healthy-eating)
- Health Canada
 - *Eating Well with Canada's Food Guide* (available in 12 languages and for First Nations, Inuit and Métis; free class sets available) (<http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/index-eng.php>)
 - *Canada's Food Guide: A Resource for Educators and Communicators* (F) (<http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/educ-comm/resource-ressource-eng.php>)
 - *Eat Well and Be Active Educational Toolkit* (F) (<http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/educ-comm/toolkit-trousse/index-eng.php>)
 - *Eat Well Plate* (<http://healthycanadians.gc.ca/eating-nutrition/healthy-eating-saine-alimentation/tips-conseils/interactive-tools-outils-interactifs/eat-well-bien-manger-eng.php>)
- HealthLink BC: Call 811 and speak with a registered dietitian (www.healthlinkbc.ca)
- Canadian Paediatric Society – Caring for Kids (www.caringforkids.cps.ca)

FOOD SAFETY CONSIDERATIONS

There are steps to take to prevent illness and make fresh vegetables and fruit safe to eat.

- When buying and storing vegetables and fruit, always keep them separate from raw foods such as meat, poultry and seafood. Juices from raw foods can be contaminated with germs that cause illness.
- Always wash hands with soap and warm running water before preparing any food, including vegetables and fruit.
- Any person who is sick and has symptoms of diarrhea or vomiting, or who has infected cuts or sores, should not be allowed to handle food in any way.
- Always wash and sanitize* surfaces where foods are prepared and placed.
- Dishcloths must be washed well and sanitized regularly.
- Take extra care to thoroughly clean vegetables and fruit, especially dirty produce. Wash them in a diluted dish soap solution and then rinse in clean running water.
- When washing vegetables and fruit, cut away any damaged or bruised areas since harmful germs can grow there. Compost or throw away any rotten vegetables and fruit.
- Wash and scrub vegetables and fruit that have a firm, rough surface such as potatoes, using a clean scrub brush for produce.
- Always wash vegetables and fruit that have a rind, before peeling or preparing them, such as pineapples, cantaloupe, oranges, melon and squash. Although the skin and outer surfaces protect them, germs can grow if the surface gets broken, pierced or cut, especially in melons and tomatoes.
- Always discard the outer leaves of leafy vegetables grown in or near the ground, such as lettuce and cabbage. The outer leaves are more likely to be contaminated with germs.
- Raw sprouted seed products, such as bean sprouts, radish sprouts, alfalfa sprouts, mung beans and others, may carry germs that cause illness. Always cook these before eating because it is difficult to wash sprouted seeds.
- Contaminated foods may not look or smell bad so if in doubt, throw it out!
- Be cognizant of any food allergies that your students may have prior to activities that involve food.
- You can make a sanitizing solution:
 - Mix 15 ml (1 tablespoon) of household bleach into 4 L (1 gallon) of water; or,
 - Mix 5 ml (1 teaspoon) of household bleach into 1 litre (4 cups) of water.

Adapted from: *Food Safety for Fresh Fruits and Vegetables and Ten Easy Steps to Make Food Safe*, HealthLink BC

Recommended Resources

- *Do Bugs Need Drugs?* (www.dobugsneeddrugs.org)
- HealthLink BC: Call 811 and speak with a registered dietitian (www.healthlinkbc.ca)

BC Grown Vegetables and Fruit

An abundance of produce grows right here in BC. With a wide variety of climates and growing conditions, availability throughout the province varies.

spring

apples • Asian vegetables* • asparagus
cabbage • celery • chard • cucumbers
garlic • kale • leeks • lettuce
mustard greens • onions • parsnips
peas • potatoes • radishes
rhubarb • salad greens • spinach
tomatoes • turnips

summer

apples • apricots • artichokes
Asian vegetables* • asparagus
beans • beets • blackberries
blueberries • broccoli • Brussels
sprouts • cabbage • carrots
cauliflower • celery • chard • cherries
corn • cucumbers • currents • eggplant
fennel • garlic • gooseberries • grapes
huckleberries • kale • leeks • lettuce
melons • mustard greens • nectarines • onions
parsnips • peaches • pear • peas • peppers
plums • potatoes • prunes • pumpkins
quince • radishes • raspberries • rhubarb
rutabagas • salad greens
Saskatoon berries • shallots
spinach • strawberries
summer squash
tomatoes • turnip
winter squash
zucchini

fall

apples • Asian vegetables*
artichokes • beets • beans
blueberries • broccoli
Brussels sprouts • cabbage
carrots • cauliflower • celery
chard • corn • cranberries
cucumber • eggplant • fennel
garlic • grapes • huckleberries • kale
kiwi • leeks • lettuce • melons
mustard greens • onions • parsnips
pears • peppers • plums • potatoes
prunes • pumpkin • quince • radishes
rutabaga • salad greens • spinach
strawberries • tomatoes • turnips
winter squash • zucchini

winter

apples • beets
Brussels sprouts
cabbage • carrots
cucumbers • kale
kiwi • leeks • onions
parsnips • pears
potatoes • pumpkin
rutabagas • turnips
winter squash

* (e.g. bok choy, choy sum, gai chong, sui choy, gai lan, daikon, lotus root)

Check out what's grown in your region at
www.farmfolkcityfolk.ca