

# How Much Is a Food Guide Serving?

Action Schools! BC

## Vegetable & Fruit Learning Activity



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Fresh, frozen and canned vegetables and fruit have a different serving size than leafy vegetables, dried or juiced vegetables and fruit. It is important for students to understand serving sizes when attempting to reach their goal of a minimum of six Food Guide Servings of Vegetables and Fruit every day. This activity provides students with hands-on experience measuring real vegetables and fruit.

VEGETABLE  
AND FRUIT

## 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

- Explain the relationship of healthy eating to overall health and well-being.
- Identify and describe factors that influence healthy choices.
- Examine and explain how health messages can influence behaviours and decisions.
- Identify and apply strategies for pursuing personal healthy-living goals.
- Describe and assess strategies for promoting mental well-being.

### CONTENT

- Practices that promote health and well-being, including those relating to physical activity, sleep, healthy eating, and illness prevention.
- Food portion sizes and number of servings.



# 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 recognizing the consequences of one's actions.

## COMPREHENSIVE SCHOOL HEALTH CONNECTIONS



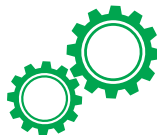
### RELATIONSHIPS AND ENVIRONMENTS

- Invite older students to work together on this activity.

### TEACHING AND LEARNING

- Learn that a serving according to *Canada's Food Guide* is a reference amount to help you determine how much food you need from the four food groups every day.

## PREPARATION



- Review the *Vegetables and Fruit* section of the *Healthy Eating Overview* (included with this activity).
- Gather the necessary vegetable and fruit preparation supplies, including cutting board, measuring cups, peeler, scrub brush.
- Gather a baseball, egg, and tennis ball to use as serving size visuals.
- Display and review the Action Schools! BC *Canada's Food Guide Serving Sizes for Vegetables and Fruit poster* (downloadable at [www.actionschoolsbc.ca/resources](http://www.actionschoolsbc.ca/resources)).
- Arrange for you and/or students to bring in an assortment of vegetables and fruit.

## IMPLEMENTATION

- Set up a circuit of measuring stations with samples of vegetables and fruit products, measuring cups, bowls, plates, glasses, and the serving size visuals (tennis ball, baseball and egg).
- Understanding Canada's First People's have different values, traditions and sometimes different food choices from those of the general Canadian population is important. Access *Eating Well with Canada's Food Guide - First Nations, Inuit and Métis* to find food suggestions that could be used in this lesson that

are tailored to traditional foods of First Nations, Inuit and Métis. It also explains how traditional foods can be used in combination with store-bought foods for a healthy eating pattern.

Example:

- **Station 1: Fresh, Frozen or Canned Vegetables or Fruit**
  - 125 ml (1/2 cup) is one serving; this is about the size of a tennis ball for a whole piece of vegetable or fruit.
  - If using canned fruit, ensure it is canned in water or juice.
- **Station 2: Raw Leafy Vegetables**
  - 250 ml (1 cup) is one serving; this is slightly more than the size of a baseball.
  - Leafy vegetables can be pre-torn, or students can tear the leaves to then measure.
- **Station 3: Dried Vegetables or Fruit**
  - 60 ml (1/4 cup) is one serving; this is about the size of a large egg.
  - If using dried fruit, ensure there is no added sugar; read the ingredient list. Some apple chips and most dried cranberries have added sugar.
- **Station 4: 100% Juice**
  - 125 ml (1/2 cup) is one serving.
  - If using fruit juice, ensure there is no added sugar (100% juice). If using vegetable juice, ensure it is low sodium; read the ingredient list.
- *Optional:* To demonstrate juice serving size, water can be used, however the message should be clearly conveyed that water is representing juice.

- **Guess the Number of Servings Table**

Have a variety of measured produce on the table. The objective is for students to put their new serving sizes knowledge to work, and guess how many servings each food item provides. For example, 250 ml (1 cup) of canned fruit equals 2 servings; 1 medium orange equals 1 serving; 500 ml (2 cups) of mixed greens in a bowl equals 2 servings.

Before starting this activity, use the poster to discuss the vegetable and fruit food group serving sizes. Have the students move through the stations to see what different servings look like and then record their guesses at the *Guess the Number of Servings* table.

- Lead a discussion about serving sizes and the daily-recommended number of servings for vegetables and fruit (minimum of 6 servings daily for students ages 9 to 13).
- Suggested discussion points:
  - The amount of vegetables or fruit eaten at a meal or snack is often more than one serving size. Servings add up quickly!
  - Serving sizes provide a consistent measure to compare what we eat to what is recommended.
  - Encourage students to eat the amount of food that satisfies their hunger rather than aiming for a specific serving size at any given snack or meal.

## EXTENSION OF LEARNING

- *Vegetable and Fruit Journal*, available at [www.actionschoolsbc.ca/resources](http://www.actionschoolsbc.ca/resources).
- As estimation of adequate serving sizes almost always comes in to play when eating. Invite students to write about it in their journals. Estimation skills are an invaluable tool to scientists, engineers, and researchers. What are some other ways you can use estimation skills on a daily basis?

## RECOMMENDED RESOURCES

- Action Schools! BC *Vegetable and Fruit Food Serving Sizes Guide* poster (F) (available at [www.actionschoolsbc.ca/resources](http://www.actionschoolsbc.ca/resources))
- HealthLink BC - <http://www.healthlinkbc.ca/> - Call 811 and speak with a registered dietitian
- 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 Plate* guidelines - <http://www.healthycanadians.gc.ca/eating-nutrition/healthy-eating-saine-alimentation/tips-conseils/interactive-tools-outils-interactifs/eat-well-bien-manger-eng.php>.
- *Eating Well with Canada's Food Guide - First Nations, Inuit and Métis* - <http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/fnim-pnim/index-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>
- Half Your Plate - [www.halfyourplate.ca](http://www.halfyourplate.ca)
- Participate in a *BC Dairy Association Food Sense* workshop. Learn more at [www.bcdairy.ca/nutritioneducation/articles/workshop-faq](http://www.bcdairy.ca/nutritioneducation/articles/workshop-faq).

# 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](http://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](http://www.healthyschoolsbc.ca)).
- Using *Food Tasting Chart* (available at [www.actionschoolsbc.ca/resources](http://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](http://foodshare.net/custom/uploads/2015/11/Fighting_Global_Warming_at_the_Farmers_Market.pdf))
- BC Agriculture in the Classroom ([www.aitc.ca/bc/](http://www.aitc.ca/bc/))

## Recommended Resources

- Healthy Families BC ([www.healthyfamiliesbc.ca/eating](http://www.healthyfamiliesbc.ca/eating))
- HealthLink BC – Healthy Eating ([www.healthlinkbc.ca/healthy-eating](http://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](http://www.healthlinkbc.ca))
- Canadian Paediatric Society – Caring for Kids ([www.caringforkids.cps.ca](http://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](http://www.dobugsneeddrugs.org))
- HealthLink BC: Call 811 and speak with a registered dietitian ([www.healthlinkbc.ca](http://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](http://www.farmfolkcityfolk.ca)